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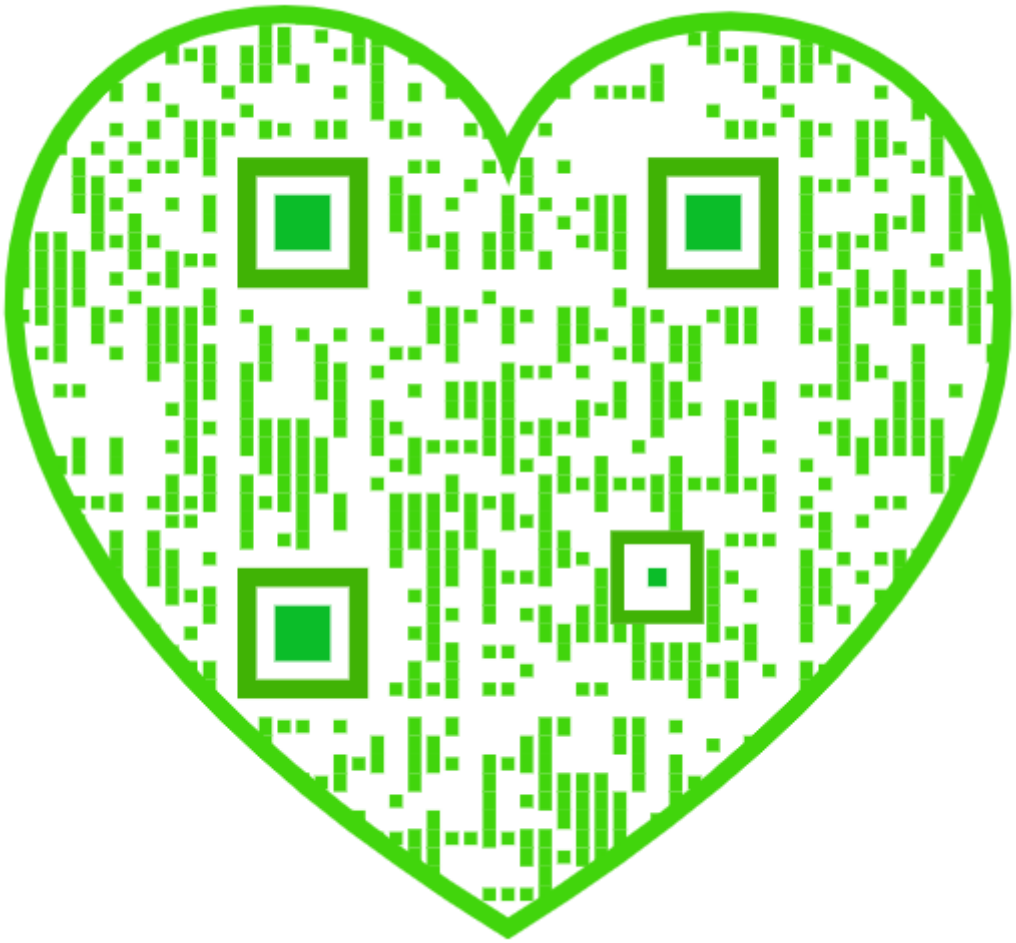
Elementary Banking

O. HOWARD WOLFE

CORRESPONDENCE CHAPTER, Inc.
AMERICAN INSTITUTE OF BANKING



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BY

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M. B. BROWN PRINTING & BINDING CO.
37-41 CHAMBERS ST. NEW YORK CITY

Preface

This book is not the result of any preconceived theories on methods of education in banking. Neither does it make any pretense of being complete as to the subjects covered nor exhaustive in its treatment of them. It is based on fifteen years of practical experience, beginning with a small country bank and extending through eleven years with a large city bank. To this first-hand knowledge of the educational needs of the beginner in banking has been added four years spent in the teaching of banking subjects to young men in the various chapters of the American Institute of Banking. The subject matter presented herewith consists in the main of a series of lectures delivered to a class of younger men in New York Chapter. This book is intended for the young man just entering the bank from school and too new in the business to be able to undertake the regular Institute study course. No other text book so far as the writer knows is designed to meet this particular need. The method of treatment is to explain the underlying principles not only of bank accounting, but of the everyday transactions that are common to all forms of banking. The danger of the small bank is that it tends to narrow the horizon of the young banker, while in the large bank the beginner too often regards his institution as something inhuman that moves along as entirely independent of him or his associates as if it were a part of the solar system. Another difficulty confronting the beginner is that when he does feel the need of instruction he is apt to fall a victim to the advice of well-meaning but untrained "instructors," who attempt to teach him banking by explaining the use of accounting forms.

The two most prevalent misconceptions that tend to restrict banking progress are first, that the bank clerk or

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officer needs no other technical education than the experience gained at his own desk, and as a result of the first idea, that banking is a matter of accounting systems only. It is the hope of the author that this little volume in spite of its manifest limitations may be the means of assisting the boy through that very trying period, his first year in a banking house.

O. H. W.

"A successful banker is composed of about one-fifth accountant, two-fifths lawyer, three-fifths political economist, and four-fifths gentleman and scholar—total ten-fifths—double size. Any smaller person may be a pawnbroker or a promoter, but not a banker."—Geo. E. Allen.

Elementary Banking

Banking as a Vocation

Every young man who goes into a bank, whether from the schoolroom or from some other business, should make up his mind very early that the work is not easy and the only way he may succeed is to begin a systematic study of banking as a science. This study, supplemented by diligent attention to his work, will secure to him that success which is the only sure kind of success, built upon his own ability rather than upon the favor of his superior officers. Those personal qualities such as honesty, courtesy, cleanliness and punctuality, which have been impressed upon him as abstract virtues in the everyday walks of life, in the banking business become concrete necessities.

Physical strength, endurance, a clear eye, speed and stamina are sought after by every manly youth, whatever his occupation, but to the professional ball player they are his stock in trade. So it is with banking. The commonest daily transactions are of such a nature that virtues which we would admire in the average individual are absolutely necessary to the banker, whether he be officer or clerk. The bank will be successful to the extent that its depositors and other clients have confidence in it and those associated with it, not only as regards their judgment in business matters, but also their moral character. It, therefore, becomes a part of the education of the bank man to fix in his mind certain rules of conduct which may be here set down as a sort of ten commandments.

1. Keep clean physically, mentally and morally.

2. Cultivate a wide acquaintance, but choose your associates from among those known to be of good character.

3. Live within your income and look upon money saved as a part of your fixed expenses.

4. Be exact in all your dealings and always keep your word.

5. Pay your debts and meet your obligations when they are due.

6. Pay strict attention to orders and obey them implicitly.

7. Show a willingness to do more, rather than less, than is expected of you.

8. Know your job and don't be content with less than all there is to know about it.

9. Spend a part of each year in systematic study and reading on banking subjects.

10. Keep in strict confidence every transaction of the bank of whatever nature.

There are many other such rules that might be suggested, but these must not be passed over as mere platitudes. Nearly all large financial institutions have similar instructions prominently posted and any infraction of the regulations is met with immediate dismissal. One large Canadian bank hands to each employee a bound copy of rules that are to govern his conduct in all matters.

The next important fact that must be accepted is that banking is a profession based upon scientific data. The physician cannot hope to learn medicine through personal experience and experiment upon his own body in curing all the diseases and disasters that flesh is heir to. Many bankers, and especially the younger and inexperienced, deceive themselves with the idea that they can learn all they need to know by close application to their own immediate desks, counters and communities. Just as the science of surgery and medicine is based upon the natural laws of the human body, so the science of banking grows

out of economic laws that are at the base of all business activity.

The young man who has adopted banking as a career, must decide, therefore, what his attitude will be toward these conditions which he can not escape although they can be mastered. Every town, if indeed not every bank, can furnish at least one example of the man who thought otherwise until it was too late. It is not to be imagined that by following a certain formula of conduct any clerk may rise by regular stages until he will become cashier or president of his bank. By increasing his own efficiency, he unconsciously is elevating banking standards, which in turn, will react upon him to his lasting benefit. Every man in the bank should be a banker, although in different degrees of development, whether he be messenger or chairman of the board of directors.

In the thickly settled and highly developed countries of Europe, it is said that it is the aim of all those who work for salaries or wages, not to try to secure better positions, but to hold what they already have. Fortunately, we are not confronted with this condition in America, but we are fast approaching it. Efficiency will ultimately determine every man's status whether he be banker or bricklayer.

Wealth and Money

Banks are institutions with a threefold relation to money; they receive money on deposit, they loan money and they issue money. There are two additional functions closely related to the others, if not identical with them; banks borrow money and invest money. It may be added that banks also transfer money, but this applies to credit rather than to money. In the popular mind and in actual practice banks are identified with the use of money to such an extent that it is impossible to get a clear conception of banking functions without some knowledge of money. This involves study of economic laws which, as we have intimated, are the forces that control banking just as natural laws govern engineering, medicine, navigation or other sciences.

All our modern complicated systems of commerce, trade and business in general grow out of the simple fact that man has certain wants which must be satisfied. He must be fed, clothed and housed. These are the primary wants. After them come education, religion and social needs and so on from the sheer necessities of life, to the luxuries. The predominant characteristic of human wants is that they are unlimited; each want satisfied leads to another and in the effort to secure what we need, habits are formed which, in turn, fix standards of living for men and nations.

The term used to define things that satisfy wants is wealth, which consists of anything that ministers to our pleasure or happiness and serves to keep away pain or discomfort. Three factors enter into the creation of wealth: land, labor and capital. The first includes the surface of the earth and all that is above or below it, in short, land is natural resources. The second factor is man himself, who by the application of his strength and skill converts the raw material of the field, the forest or the mine into such form

that he can make use of the wealth thus created. This is labor. The third factor is capital.

Of all economic terms in common use, the three most generally confused are capital, wealth and money. They are not by any means synonymous. We have seen, first, what wealth is, and we have learned that there are three factors that go to produce it. The first two produce directly, while capital produces indirectly through the other two. Capital is wealth that works in the production of more wealth. For example, the miner applies his labor to the vein of coal and produces wealth in the form of fuel. He uses a pick and other implements; a track is built into the mine over which cars are hauled by a small compressed-air motor; at the mouth of the shaft is an elevator operated by an engine and other machinery. These implements, tools, machinery, etc., are capital. If the capital of the mine is $100,000, it means that this machinery cost that amount of money. The money itself is gone into other hands in the process of circulation. In the banking business, money is the raw material so to speak, so that the terms capital and money are nearly synonymous as applied to banks. How capital arises will be discussed later.

An object is said to have utility when it satisfies a want. Value exists, however, only when an effort or sacrifice of some sort is required to secure the object having utility. The value, therefore, depends largely on the extent or degree of the sacrifice necessary to obtain use of the thing desired. Let us suppose a man owns a farm in one corner of which he finds a hard, black stony deposit not useful for anything so far as he can discover. A neighbor, upon experiment, learns that the black stones will burn and so possess utility. Thereupon he gives the man who owns the coal some of his wheat in exchange for the fuel and thus the coal becomes valuable. It is power of exchange that bestows value.

Thus a thing may be very useful, as for example, water, but of no value unless it can be exchanged for something else.

Exchange is the process of giving and taking one thing for another. It is not necessary for each of us to produce for ourselves all the things that we need. The farmer raises potatoes, but he does not need to make his own shoes. He may exchange his potatoes with a shoemaker for a pair of boots. But this would be a clumsy process since each one who had anything to trade would need to find someone who was willing to exchange for something else that was wanted. Therefore, a medium of exchange becomes necessary and this medium of exchange we call money. Money may be anything that the producer will accept in exchange for his product, but it must have value in itself or else we will not be able to exchange our money for other goods. It must be something that does not exist in too abundant quantity else it will require no sacrifice to secure it and it will, therefore, lose its value. It must be easily recognized or else it may be counterfeited and so there will be no confidence in it. It must contain large value in small bulk, or it will not be convenient for use. It must be durable, so that it can be stored up for future use. Finally, it must be of a material that will not be destroyed, by being divided and redivided, which is necessary since the same quantity or values will not always be offered in exchange. There is but one material that possesses all these qualities and that is gold. Hence, by a long process of experiments and eliminations, all large nations have come to the conviction that gold is the ideal medium of exchange. In order to prevent any controversy that might arise between the buyer and seller as to the purity or weight of the gold offered in exchange, the government coins it in metal discs and then by a stamp, certifies as to the quantity and quality of the bullion contents. This is called coinage.

Not all money is gold, however. There are three kinds in all, standard money, which is usually gold; credit money, generally made of paper; and token money, which is the small change, the bullion contents of which are less than the coin value. In the United States there are more varieties of these three kinds of money in circulation than in any other country. We have gold coins; gold certificates, which are practically the same thing; standard silver dollars and silver certificates; fractional silver; nickels and cents; Treasury notes, which were issued to purchase silver bullion and are then redeemed when presented, the bullion having been coined; U. S. notes, or "greenbacks," which are called "fiat" money because the government forces their circulation; and bank notes. For some years to come, we will have three kinds of bank notes in circulation; the national bank notes, Federal reserve notes, and the notes issued by the Federal reserve banks, secured by U. S. bonds which, beginning Dec. 23, 1915, they may buy from national banks.

In addition to being used as a medium of exchange, money has two other uses. It is used as a standard of value and as a basis of deferred payments or credit. The value of every form of wealth is quoted in terms of money and in this sense money is used as a standard of value. This use of money causes many people to confuse money with wealth. The third use of money, as a basis of credit, or payments to be made at a later date, is an important one from a banking viewpoint because it is this use of money that is involved in bank deposits. Bank deposits, for example, may be set down for the entire country at about 18 billions of dollars (1915), whereas there are less than 4 billions of money, the medium of exchange in the United States.

It is not necessary that there should be as much money as is represented by other forms of wealth. Using money

as a standard of value, we may say a certain building is worth $10,000, an automobile, $1,000, your watch, $20, your hat, $2, and so on. But since these things are not purchased by each of us every day, the nation as a whole will need only as much money as is required to make exchanges. And so with bank deposits. If every depositor wished to withdraw his balance in cash daily, there could not be a larger amount of bank deposits represented by a money value, than there was actual money in the country. Panics are due to the fact that people confuse values with money and when everyone tries to "sell" or convert his standard-of-value money and basis-of-credit money into medium-of-exchange money, there isn't enough to go around. Banking comes to the rescue in such a situation with the note-issuing function which will be explained later.

Through the use of checks and banking mechanism, bank deposits are also a form of credit money. If A wishes to pay B ten dollars, both having bank accounts, A writes his check or order upon his bank for that amount and gives it to B, who deposits the check to his credit. No actual money changes hands, the entire transaction consisting of debit and credit book entries. Here again we see why it is not necessary to have as much medium of exchange money as we have bank deposits.

Why Banks are Necessary

We have discussed the relation of banks to money in the previous chapter. We have seen how money is necessary to industrial and commercial progress, not because of its own intrinsic worth but because it makes exchange possible. We can next take up a consideration of the part that banks play in the development of industry and wealth. Of all the great institutions that serve the people, such as schools and colleges, churches, railroads, the postoffice, newspapers and banks, the public knows least about banks. To the average person, they are places fitted up with vaults where savings may be stored, where clerks keep records of the balances which the bank will pay back, plus the interest that in some mysterious way has accumulated. And too often the bank clerk is content to think of the bank only as an institution that requires him to report at a certain hour in the morning, post figures in books, the real nature of which he does not understand, and then go home at night after he has struck a balance. The bank clerk ought to know why banks are necessary and how important are their functions, not only because it will enable him to work more intelligently, and with greater interest in his work, but he will also be able to explain the nature of banking to other people, many of whom distrust banks because they do not understand them.

Banks owe their origin to the simple law of nature that everything that lives grows and expands.

Nature is very generous and has so arranged her scheme of production and increase that every one, in fact every living thing, has in him or it the power to produce more than is needed for immediate consumption to sustain life. The bee, the ant and the squirrel store up surplus summer food for the winter; the mountain uplands and valleys nourish the deer and other wild creatures with an abundance each

season renews. And man, in a civilized state of industry, can through his labor in any direction, produce more than he needs for his own sustenance. Perhaps it is nature's plan that he shall produce in his youth what he must consume in his old age.

With the development of exchange and the use of money this power to create surplus wealth is harnessed. The surplus wealth, converted into money, is laid aside—deposited in banks—for future consumption and thus capital, the third factor of production, has its origin. Wealth instead of being allowed to lie idle, is set to work to produce more wealth, which is good, since wealth is anything that adds to human welfare. Let us see how the bank sets money—the result of work—to work in turn.

Without exchange, when man was in the savage or pastoral stage, he produced for himself everything he consumed. As soon as he began to confine his labor to one particular thing which he would sell or exchange when completed, he began to feel the need of credit, that is, the power to borrow from his neighbor for sustenance until he was able to use or sell his own product. Of course, he would borrow not the actual goods, but the money to purchase them. Under modern conditions, money is borrowed and loaned for hundreds of purposes and in many different ways, but the underlying principle is always the same.

For example, the farmer plants his crop in the spring; he must buy seeds, pay for labor and keep his family in food and clothing until the fall when his harvest ripens and can be sold. The store-keeper or merchant fills his shelves with endless variety of goods, part of which he has bought with his own capital and part with money he has borrowed to be paid back when his goods are sold. The builder erects a dwelling or larger edifice for which he must buy labor and material. He will need money until his contract is com-

pleted. Railroads are built, mines developed, crops must be moved, new enterprises financed and so on without limit, borrowed money making possible all these vast facilities that are indispensable to modern civilization.

These conditions would be as nearly impossible without banks as would be an efficient exchange system without money. If everyone who needed to borrow money was forced to search about for someone who had just the right amount to loan, there wouldn't be much business. Furthermore, those who had money to loan would need to be acquainted in each case with the borrower's ability to repay the debt else there would be loss and ultimate ruin.

Banks are storehouses where the equivalent of surplus wealth—money—may be accumulated and loaned for the purpose of creating more wealth. Thus it will be seen that still another virtue, thrift, which we are accustomed to urge upon men as bringing its own reward, is after all a cold business necessity. Men must work, produce surplus wealth, save a part of it or there will be no storehouse of money and credit which is so essential to the production of both the necessities and luxuries of life. The humble wage earner who puts aside even a small fraction of his income is doing more than fortify himself against the future. His accumulated savings added to those of all other classes, rich and poor, placed in banks and by them loaned out, make possible the industry that gives work and sustenance to all.

There are many ways in which money is deposited and loaned or invested. For this reason, there are several different kinds of banks. The same principles are involved in each case, however, and the young bank man who would become a banker is cautioned against the common error of thinking that each kind of bank is peculiar unto itself and so requiring a different course of study.

Classes of Banks

It is conceivable that one kind of bank could meet the banking needs of all the people, and in fact such a condition is approximated in a little one-bank town where the institution may be either a state or national bank, a savings bank or a trust company. Sometimes it is a private bank. Generally speaking, however, the so-called commercial bank is the variety to be found where there is but a single bank. Similarly, in larger cities, we find trust companies which, when the state laws do not contravene, perform practically every financial service except that of note issue.

Banks are generally classified as follows: Commercial banks (either national or state), trust companies, savings banks and private banks. The building and loan association is, in principle, a banking organization and some forms of life insurance are closely allied to banking. Each has its particular specialty or function which characterizes it. The fact that there are these different groups, instead of one general kind of bank, is due partly to natural development and partly to design. Since all banking in principle is identical and governed by the same economic laws, it is not surprising to note the tendency in legislation to bring them all closer together. For example, the Federal Reserve Act provides that trust companies may take out national charters under certain conditions, while at the same time, national banks, when not in contravention with state laws may act in a "fiduciary capacity," that is, perform functions usually limited to trust companies. The right of both commercial banks and trust companies to accept savings deposits is universally conceded. They frequently conduct bond departments, thus encroaching upon what was formerly the especial field of the private banker who is usually an "investment banker." The private banker, in turn, very fre-

quently does a large commercial business and many states are revising their banking laws, which will bring him under the direct supervision of the banking department. The conclusion, therefore, is that although the specialist is more in demand than ever, every banker should be trained along broad lines.

The close relation between banks of different kinds will be demonstrated more clearly by referring to the organization charts and the statements of condition shown on pages 22 and 23. The difference between banks is precisely the difference between the classes of people whom they serve. The savings bank is usually the bank of the small depositor, the wage earner and the thrifty of all classes; the trust company gives its services more especially to those who have fixed incomes from investments; land owners and corporations. The commercial bank, as the name signifies, does business with manufacturers, tradesmen, merchants and others who "turn" their money at seasonal intervals. Thus we have the "Dime Savings Bank," "Home," "First Penny," "Dollar Savings Bank" and similar suggestive titles. Among trust companies common names are "Fidelity," "Guarantee," "Provident" and "Security." When the National Bank Act was first passed it attempted to restrict the titles of the banks to "First," "Second," "Third," etc., but the commercial state banks refused to accept the new charters with this provision, so the act was amended. Hence we have the "Merchants," "Tradesmens," or "Commercial" national banks, while in the agricultural districts, where the farmer is the business man, the "Farmers Bank" is common.

The commercial banks may be said to be the most important since they come into close contact with the industrial world. Upon them falls the function of note issue as well as the other two, deposit and discount. This is due to

natural causes, since the greater the trade and commerce, the greater will be the need for money or a medium of exchange. Bank notes give the needed elasticity to currency issues. If our crops were always the same each season, if the population remained fixed in numbers, if each citizen on a given day of each week, year in and year out, purchased the same article of food, furniture or clothing, then our money supply would not need to possess the power to expand or contract. But conditions are fortunately otherwise. Until the Federal Reserve Act became law the issue of notes was a prerogative of the national banks. Ultimately this function will be taken over by the Federal reserve banks. The process of note issue is quite simple: the issuing bank circulates its notes—promises to pay on demand —as money. In order that there shall be confidence in the notes, the bank must be solvent and the notes must be redeemed without question. There must be proper supervision and control, else there is danger of inflation or too extensive an issue. Bank laws in every country are constructed to guard against improper issues since banking systems have proved successful or failures in accordance with the soundness of note issues.

Banking history and business experience have taught the lesson that there are times when there must be a bank of banks. The great central banks of Europe perform this service abroad, and in our own country the Federal reserve banks act as the fly-wheel and governor of our financial machinery. Banks need to borrow just as do individuals, and they can concentrate their surplus or reserve in the reserve banks just as people accumulate their savings in ordinary banks.

Bank Organization and Administration

It will not be necessary for present purposes to describe the detail of organization of each of the three main classes of banks. The commercial bank plan of organization will serve as a model and, in fact, state laws are often based upon the national bank act in this respect.

So far as organizing a bank is concerned, the law makes no distinction between the large bank and the small; in the eyes of the law they are identical. In the early days, immediately following the independence of the United States, all banks received their charters direct from Congress. Owing to the misconception of banking and the popular distrust of banks, it was a hard matter to secure a charter, consequently abuses developed to such an extent that what were known as "free banking laws" were passed in the several states to correct the political evils incident to bank organization. This plan of procedure obtains to the present day, and any number of "natural" persons, not less than five, may organize a bank. Articles of Association are drawn up and a Certificate of Organization is executed. The capital is subscribed and at least half of it must be paid in in money before the bank may commence business. The balance must be paid in in regular installments within five months. The minimum amount of capital is based on the population of the city or town where the bank is located. The Comptroller of the Currency has power to authorize the organization of a national bank.

The bank must have a president, a cashier, and at least five directors. The directors must own at least ten shares of stock, except when the capital is not more than $25,000, when five shares are required. The directors are elected by, and represent, the stockholders who are the owners of

the bank. They meet at least once a month and direct the policy of the bank. The directors elect the officers, a president, vice-president, cashier and assistant cashier, who are the executive heads of the institution and are charged with the duty of administering its affairs. The number of vice-presidents and assistant cashiers depends upon the size of the bank. The clerks divide naturally into two groups, tellers and bookkeepers.

The student must not imagine that each bank, in its internal affairs, is a law unto itself and that the duties and responsibilities of directors, officers and clerks depends upon the size and location of the bank. An acorn dropped into the ground will dig into the soil with its tiny roots, and send up a green shoot bearing two or more perfect leaves. So far as plant organization is concerned, the embryo tree is identical with the giant oak with its sturdy roots and trunk and far-spreading branches and leaves. So it is with banks. The duty goes with the office rather than with the man. The responsibility of the directors is the same in all cases. In the very large banks, we find the board organized into a discount committee, a finance committee, examination committee, etc., in order that the directors may the better keep in touch with the affairs of the bank and fulfill their moral and legal obligations to stockholders and depositors.

In the small country towns the president is usually inactive. He may be a business man who drops into the bank once a day to consult with the cashier who also acts as teller. There will be a bookkeeper, who keeps all the records and acts as general clerk. Such an organization does not mean that the bank has no teller, nor individual ledger bookkeeper, nor discount clerk; the same man (or men) fills several positions, and his responsibilities are those that go with the particular work in hand. Bank work may be roughly grouped into three divisions: executive, teller and bookkeeping, and

this classification holds, no matter what the size of the bank or whether it is commercial, trust or savings.

In large banks, for example, discount or loan clerks relieve the officers of the detail work incidental to the making of loans, or a credit man is employed to collect and keep records that in a small bank are kept in the president's head. Instead of a single teller, there will be two or more, one to pay, another to receive, another to make collections, and so on. The work of all tellers is alike in that they come into direct contact with the bank's customers. The bookkeepers are divided into those who keep the general accounts and those who keep the accounts of individual depositors. These last may be redivided into alphabetical groups.

Reference to the organization chart shown on page 23 will assist the student in grasping the general plan of bank organization. The chart will also indicate the usual methods of division of the work as the bank increases in size. The administration and organization divisions printed in capitals are common to all banks, although in some cases they may be known by different terms. For instance the directors of a mutual savings bank are called "trustees."

OUTLINE BANK STATEMENTS, CLASSIFYING ASSETS AND LIABILITIES OF THE THREE KINDS OF BANKS INTO GROUPS

ASSETS

Commercial	Trust	Mutual Savings
1. Loans and Discounts Bonds	1. Loans and Discounts Bonds and Investments Mortgages	1. Bonds Mortgage Loans
2. Due from Banks Due from Reserve Agents (Federal Reserve Bank)	2. Due from Banks Due from Reserve Agents	2. Cash in Banks
3. Banking House	3. Banking House	3. Banking House
4. Cash	4. Cash	4. Cash

LIABILITIES

1. Capital and Surplus Undivided Profits	1. Capital and Surplus Undivided Profits	1. Reserve (or Surplus)
2. Circulation (If a National Bank)	2. None	2. None
3. Due to Banks Deposits	3. Individual Deposits Savings Deposits	3. Deposits

STOCKHOLDERS who own the bank

elect

DIRECTORS who direct the policy of the bank

appoint

- Discount Committee
- Executive Committee
- Examination Committee

OFFICERS who manage the bank

employ

- President
  - Vice-President
- Cashier (or Treasurer or Secretary)
  - Assistant Cashiers

CLERKS who do the detail work, classified opposite

EXECUTIVE DIVISIONS OF WORK

- Loan and Discount Department
- Credit Department
- Auditor
- Analysis Department
- New Business Department
- Trust Department

TELLER DIVISIONS OF WORK

- Paying Teller
- Receiving Teller
- Note Teller
- Collection Teller
- Exchange or Draft Teller

BOOKKEEPING DIVISIONS OF WORK

- General Ledger
- Individual Ledgers
- Savings Accounts
- Country Bank Accounts
- Statement Clerks

Departments in a Bank

As soon as it becomes necessary, on account of volume of business, to divide the work in a bank into divisions, each employing a group of clerks, such division is organized into a department having a department head who is usually a teller, a head bookkeeper, or perhaps a junior officer. In the very large banks the executive staff is itself organized into groups, and there may be a vice-president and one or two assistant cashiers in charge of each important department.

The work of a department in a large bank is nothing more nor less than the work of a single man in a small bank, apportioned among several men. For example, the receiving teller in a five-man bank will take the deposit, count the cash, examine the checks, assort them as to place payable, enter them upon the proper records and make a settlement or proof at the end of the day. In a large bank each of these operations is performed by a different man or group of clerks under the direction of the receiving teller, who is head of the department. It may be that he himself will do very little if any of the detail work. He becomes the manager. Frequently we find a department within a department, as for example, the money department within the paying teller's department.

The ordinary departments, classified as to group, may be described as follows:

Paying Teller's Department (Teller): Pays or certifies checks. In charge of the signature book or cards bearing the authorized signatures of all depositors. Ships currency. In charge of the vault cash and reserves.

Receiving Teller's Department (Teller): Receives deposits. Distributes checks to bookkeepers and other departments. Prepares exchanges for clearing house. Turns cash over to the paying teller at end of day.

Note Teller's Department (Teller): Collects notes and drafts due at the bank or elsewhere in the city. Usually in charge of the runners or messenger department, which is a subdivision.

Collection Department (Teller): Collects notes, drafts, and other "time" items when payable out of town. Credits accounts of depositors when collections are advised paid.

Transit Department (Teller): This is a subdivision of the receiving teller's department and may be known by other terms, such as correspondence, foreign check, miscellaneous check or country check department. Assorts checks payable out of town, endorses them and lists them on letters addressed to other banks. Gives totals of outgoing or remittance letters to general ledger bookkeeper at end of day.

Loan or Discount Department (Executive): Receives notes submitted for discount or makes loans. Figures discount and interest. Has charge of collateral securing loans.

Credit Department (Executive): Secures and collects information relating to borrowers. Checks statements submitted by them. In charge of credit files which contain information as to the reliability, business habits and financial strength of borrowers.

Analysis or Statistical Department (Executive): Usually found in city banks. Analyzes the accounts of depositors to determine which are profitable and which are losing accounts. Makes monthly reports to officers. In charge of statistics relating to the bank's accounts.

Individual Ledger Department (Bookkeepers): Keeps the records of the balances of individual depositors. May be subdivided as to kind of accounts (savings, dealers), in addition to ordinary alphabetical division. May balance pass-books or there may be a separate department for this purpose using the statement system. Figures interest on accounts.

General Ledger Department (Bookkeepers): Keeps the general or control accounts of the bank. Makes up the bank's statement of condition.

Country Bank Account Department (Bookkeepers): Confined to city banks. Keeps the accounts of other banks, usually consisting of reserve accounts.

Auditor's Department (Executive): Responsible for the settlement of the various departments. Reconciles the accounts with other banks. Certifies interest calculations.

In addition to these departments, there are others to be found either in very large banks or even in small banks operating special features. Among the first might be noted the coupon department, exchange department, purchasing department, filing department, interest department, new business department, etc., all of which terms are self-explanatory. Among special departments may be mentioned the bond department, safety deposit department, special deposit department (securities and valuables stored with the bank, but not placed in private boxes). In trust companies there is the trust department which may have a complete independent organization of its own, with officers, bookkeepers and other clerks. This department has charge of the trust accounts. All these various departments will be explained in more detail in separate chapters.

Bank Statements

RESOURCES		LIABILITIES	
Loans and Discounts	$400,000.00	Capital	$100,000.00
U. S. Bonds to Secure Circulation	75,000.00	Surplus	70,000.00
Other Bonds and Securities	25,000.00	Undivided Profits	5,000.00
Due from Reserve Agents	45,000.00	Circulation	75,000.00
Due from State Banks	3,000.00	Individual Deposits	350,000.00
Exchanges for Clearing House	2,000.00	Certificates of Deposit	50,000.00
Banking House	50,000.00	Certified Checks	20,000.00
Gold	25,000.00	Cashier's Checks	10,000.00
Legal Tender Notes	15,000.00	Due to Banks	20,000.00
Silver Certificates	40,000.00		
National Bank Notes	15,000.00		
Fractional	5,000.00		
	$700,000.00		$700,000.00

A good way to understand the nature of banking functions is to examine a bank statement and study the various items of assets and liabilities. Issuing a statement of condition is not left to the discretion of the bank; it is required by law. The national bank act provides that national banks shall publish their statements at least five times yearly, on

the call of the Comptroller of the Currency. It may be said then, that banks issue their statements for two reasons; because their semi-public nature makes it legally necessary, and because it is useful as an advertisement. Few people, comparatively speaking, understand how to read a statement so that much of the value is lost both to the bank and to the public. Some banks are beginning to explain the meaning and force of the statement in their advertisements. More should do so.

For the purposes of illustration, the statement of a national bank may be said to be typical, since it includes more general items than the figures of a state or savings bank. All bank statements are similar, as will be seen by reference to the forms shown on page 22. There are two sides to a statement: the liabilities show what the bank owes, the resources what the bank owns, or rather what it has wherewith to pay its debts.

The creditors of the bank may be divided into three groups: (1) the stockholders, (2) the depositors, (3) the general public. The first group are inclined to examine the statement to determine if the bank is earning money, the second group satisfy themselves that the bank is safe, and the third group look to the government for protection since they have no voice in the management of the bank, nor any choice in accepting their relation to the bank. The resources may also be roughly divided into three kinds: (1) loans and investments having a fixed maturity, (2) amounts due from other banks usually payable on demand or subject to draft, (3) actual money or cash. There is also the bank building and with this item there is included the amount of money representing the vault, furniture and fixtures.

These various items all bear relation to each other, and the trained observer is able to base an intelligent opinion on the condition of the bank and the sagacity of its officers

by a study of the proportion of one figure to another. A complete analysis, however, is not possible except by comparing a series of statements covering a long period. This enables one to tell if the bank is growing or doing a profitable business.

The first liability item of importance is the capital. This should be large enough to give strength to the bank and enable the institution to accommodate the needs of its customers. Many transactions are by law based on the amount of capital. For example, national banks can loan no more than 10% of the capital and surplus to one individual or interest, and no matter how large the surplus may be, no single loan larger than 30% of the capital can be made. Members of the Federal reserve system are required to subscribe 6% of their capital and surplus to the capital stock of the Federal Reserve Bank of their district. The total amount of mortgage loans is also restricted to a certain proportion of capital. Banks try to sell their stock as widely as possible because if it is held by a great number of people, more business is attracted to the bank and it is hard for anyone to get possession of the greater part of the stock and thus control the bank.

The surplus also belongs to the stockholders. This fund represents earnings that are set aside to give added strength. If "bad loans" are made, the loss may be charged to the surplus fund, thus securing the depositors. National banks are required to set aside 10% of net earnings as a surplus fund until such fund shall amount to 20% of the capital before a dividend may be declared.

Deposits are of several kinds. The term "individual deposits" is, by custom, applied to deposits that are subject to check, that is, payable on the order of the depositor this order being written on an instrument called a "check." Savings, or time, deposits are also due to individuals, but

not subject to check, that is, the bank may require notice of withdrawal to be given. Certificates of deposits are written acknowledgments made by the bank that a deposit has been made and the bank will pay the amount named upon presentation of the certificate properly receipted on the back, or endorsed. Certificates of deposit may be payable either at sight or on a given date, and are known as demand or time certificates respectively. Deposits made by one bank in another are sometimes called bank deposits, but such accounts are officially reported as "due to banks." There are no restrictions as to the amount of deposits a bank may receive nor need they be limited by the amount of capital stock. It has been set down as a good banking principle, however, that the capital and surplus of a commercial bank should approximate 10% of the total deposits. This, however, is a statement of opinion, rather than of fact.

Certified checks and cashiers' checks are used when the holder or the maker of a check wishes to exchange his credit, which may have only a local value, with the credit of the bank, which has a general value. That is, the account of the depositor is charged the amount of the check, which then becomes a liability upon the bank, payable when properly endorsed. Note that the deposit obligation has not been discharged so far as the bank is concerned until the check is paid, hence in calculating reserve, certified checks and cashiers' checks are included as a part of the deposits. Except that they are payable to a named payee, they are practically the same as bank notes which are payable to bearer—they are obligations of the bank due the general public.

The circulation item, meaning the notes of the bank for use as money, is to be found only in the statement of the national bank, and in course of time all bank note issue will be the exclusive function of the Federal reserve banks.

These notes are secured by collateral, that is, the public is secured against loss in the event of the failure of the bank, by a deposit of bonds placed with the Treasurer of the United States. This is called the currency principle of note issue. Nearly all other countries use bank notes issued under the banking principle, in which no collateral is put up and the notes are secured by the general assets of the bank. This is the more scientific principle, since the needs of trade, rather than the scarcity or abundance of bonds or other collateral security governs the elasticity of the issue.

Turning to the assets or resources of the bank, the first classification of items consists of the investments. These vary as to kind and ratio to the other figures of the statement as between different kinds of banks. They will also vary in the same kind of banks but located in different sections of the country. The commercial bank must keep its assets liquid; that is, constantly turning or moving because its depositors are making active use of their funds at all times. Loans and discounts, the largest investment item of the commercial bank, have fixed maturities and, therefore, the bank also buys bonds because they can be readily sold and converted into money in case of need. Bonds are sometimes called "secondary reserve" for this reason. Until the passage of the Federal Reserve Act, national banks were compelled to invest a certain proportion of their capital in government bonds. This provision grew out of the necessities imposed by the Civil War. At that time the credit of the government was at a low ebb and purchasers for bonds could not be found.

It is not amiss to pause a moment and take note of the scars that have been left upon our national life by the four years' war between the states. On the map there is the state of West Virginia; in every town and city, North and

South, are noble monuments to commemorate the deeds of brave men; in the pages of history will live forever in solemn grandeur the figure of Abraham Lincoln; in the world of music there are the stirring strains of a hundred songs and battle hymns; and, coming down to the more sordid affairs of men, in our banking and currency systems we have the justly deplored "greenback," or U. S. note, which was forced into circulation at the time of the war, and the national banking system.

Before leaving this momentary digression, it is well to call the attention of the student to the experiences met with in connection with the issue of "greenbacks," or fiat money. When Congress first authorized their issue in 1862, to be used as money, they caused gold to go to a premium. It required at one time $258 of greenbacks to secure $100 of gold. They did not possess the qualities that good money must have, and it was not until the policy was adopted by the government of redeeming them in gold on demand that they approached par value. They illustrate the fact that man-made laws cannot upset economic laws any more than water can be made to run up hill by an act of legislation.

In some states trust companies are prohibited from discounting, that is, loaning money on promissory notes. This law is evaded by "purchasing" the notes outright, a distinction in law but with little difference in actual practice. Both trust companies and savings banks invest largely in bonds and mortgages. They are able to loan their money in this way because trust funds and savings deposits are not constantly turning; they are of the nature of long-time investments. Many states have laws which prescribe certain limitations governing the purchase of bonds. In such states bond issues are advertised as "legal investments" for savings banks and trust funds. In other words, the

state protects the depositors by permitting their money to be loaned only in the safest securities. Good banking principles require that all banks should so loan or invest their funds that the loans are of different kinds and maturities follow each other regularly. If stress should occur, if an unusual number of depositors want their money, the bank will have loans coming due to meet the demands, and if these funds are not sufficient the bank can fall back on its "secondary reserve," that is, sell its bonds, which, if they are first class, will command a ready market.

The items "due from banks," "checks and cash items," "exchanges for the clearing house," are amounts due by other banks and are payable on demand. They may represent two different kinds of accounts, however. Amounts due from other banks may be checks in process of collection, that is, checks payable at other banks either in the city or elsewhere, which have been sent out for collection, or they may represent funds which have been collected, but which are on deposit with another bank—known as a "reserve agent"—and are subject to draft.

The cash items, actual money, usually classified as to kinds, are self-explanatory. This is the "till money" of the bank to care for currency needs. It is also the bank's reserve and it is based by law upon the amount of net (i. e., collected) deposits. The percentage of reserve required varies with the kind of bank, this being a natural result of the fact that one kind of bank will not have the same demands as another. This money represents the uninvested portion of the bank's funds.

The building, furniture and fixtures are carried as a resource, usually at a figure less than their actual cost. This is done not only as a margin of safety, but also because few banks would be able to sell their property at short notice for its full value. This item should, therefore, be

given close scrutiny in determining the strength of the bank. Sometimes very strong banks "charge the item off" entirely out of surplus on the other side of the statement. Others do not own their buildings, but pay rent.

With this explanation of the various items, we can now use an outline of our bank statement to show how the institution "works."

ASSETS		LIABILITIES	
Loans	$400,000.00	Capital	$100,000.00
Bonds	100,000.00	Surplus	75,000.00
Due from banks	50,000.00	Circulation	75,000.00
Banking house	50,000.00	Deposits	450,000.00
Cash	100,000.00		
	$700,000.00		$700,000.00

Assuming that the bank has started with capital fully paid in and with some deposits, a building is secured, a few loans made, bonds purchased and the proper proportion of cash or reserve is placed in the vaults. Accounts are opened with other banks, a part of the earnings is set aside in the surplus fund and the bank finally grows to the dimensions shown in the statement. Now let us reverse the process, and see what happens if a panic should occur or the depositors want their money. We must keep in mind the fact that both sides of the statement are always equal. As the deposits begin to fall, the cash is the first resource available to meet the drain. Then the amount due from banks is called upon and other institutions pay this amount with cash which helps to keep the bank going. Loans are

falling due, and as they are paid this money also goes to the depositors. Then perhaps the bonds are sold and so until all the resources are realized upon and the depositors are paid off. In actual practice, however, when trouble starts, all the depositors want their money at the same time and they want it right away. They do not know that basis-of-credit money or deposits cannot be converted into medium-of-exchange money at short notice. When this situation arises, banks are compelled to suspend specie payments because there is not enough specie to go around. Making use of the note issue function, the bank would pay the depositors with its own notes or promises to pay which circulate as money. Now we see why note issue is such an important matter. Bank notes to be useful, as money, must enjoy the confidence of the people or they will not be accepted. Now let us apply the Federal Reserve Act to our bank statement. Under this Act the bank, instead of being obliged to suspend payment to its depositors, can take a part of its loans and discounts to the Federal Reserve Bank and the Reserve Bank will give its own notes in payment. In the statement this reduces the bank's loans and increases its cash. The public, knowing that these great banks must keep a large gold reserve, will accept the notes and the panic or demand for money slowly subsides. The scare being over, and having no use for the money as a medium of exchange, the people redeposit it in the banks, the banks deposit the Federal reserve notes in the reserve banks and they are then cancelled and retired from circulation.

Let us suppose our bank has made some "bad loans" that are not paid when due. This reduces the assets so that they will not equal the liabilities. What happens? The bank reduces the surplus fund the same amount so that there is no loss to the depositors. If, however, the

bad loans are larger than the surplus, the bank will be closed by the Banking Department or the Comptroller of the Currency, and the stockholders are then liable for an assessment equal to the amount of stock they hold to make up the loss.

Bank Accounting

Bank accounting consists in making written, permanent records of every transaction. Every penny must be accounted for. The statement of the bank, which we have just discussed, shows the general, or control, accounts of the bank, and the various books of the bank show the detail of these items. It would not be impossible, but it would be entirely impractical, to enter every figure directly on the statement of condition. We might imagine an enormous sheet on which the capital is entered as to the ownership of each share of stock. Instead of total deposits, the balance of each depositor would appear opposite his name. On the other side, instead of loans and discounts, there would be an itemized list of the loans with the names of the borrowers. With such a sheet spread out over a floor space of great area, we might imagine the clerks crawling up and down the columns like flies making debits and credits. This is, of course, absurd, but it is precisely what happens, except that the entries are made on books, loose leaves or cards, and the final results are posted on the statement of condition which is thus altered day by day.

As in other matters we have mentioned, banks are also alike with respect to bank accounting, the same principles govern whether the bank is large or small, national bank or trust company. All the books are a part of the general books, and the extent to which they are divided depends on the size of the bank. Division is made to fit the capacity of the clerk. When any part of the work becomes too burdensome for one man, he may be given an assistant or the books and records will be further divided, so that two men can do the same thing without conflicting. In very large banks a clerk may spend all his time listing checks upon a sheet, or adding up certain columns of figures or doing

any one of a thousand things that must be done in the process of keeping accounts. Unless he is studious and observant, he loses sight of the fact that his work is a part of the whole, he becomes mechanical, falls into a rut and banking, instead of being an interesting employment full of possibilities, is to him mere drudgery. He is standing so close to the machinery that he allows it to master him instead of broadening his vision by study and thus mastering his task.

The first principle in bank accounting, as in all other bookkeeping, is that for every debit there must be a credit, and vice-versa. In accordance with this fundamental theory the books must always be in balance. As we have seen with respect to the statement, every dollar of liabilities is accounted for by another dollar of resources. This is true of every bank. If the institution is large enough to be divided into departments, such departments are charged with all funds passing through their hands, and they must show on their records what has become of every penny. Similarly each clerk, bookkeeper or teller accounts at the end of the day for each item of cash he has handled. When he has done so he is said to have "settled," "balanced" or "struck a proof." Every bank clerk has had the experience of remaining at his desk until a late hour at night checking up his day's work searching for a difference of a few cents. Often he becomes embittered at what seems to him a tyranny when the small sum of money involved is considered. The reason he must settle, however, is not on account of the possible loss of ten cents, but because the most important principle in bank accounting is involved. "Accuracy first" is a motto that should be framed, figuratively at least, upon the wall of every banking room.

The books used by a bank are of various kinds and their purpose is indicated by name. A ledger is a book used to

keep a record of balances. To "post" means to enter in the proper columns either the debits or credits on the ledger, and the difference between them represents the balance either due by or to the bank. Most banks are doing away with bound books, especially ledgers, and substituting cards or loose leaves. This plan enables several men to work on the same records, which would be impossible if they were bound in a single book. Alphabetical division is also easier of adjustment and "inactive" accounts can be readily separated from "active" accounts. Totals of balances can be listed upon adding machines for proof more easily from loose sheets than from bound books. But whether bound or not, records of balances are kept upon ledgers.

A journal is a book in which daily transactions are listed in regular order as to accounts, and the total debit or credit is then posted on the ledgers. Journals, too, may be loose sheets so that they can be inserted in the carriage of an adding machine; indeed, machines have been invented upon which both debits and credits may be written and the machine will automatically subtract or add and print the new balance. The journal, then, is merely a subdivision of the ledger.

A depositor of the bank wishes his account to be charged and the money paid to a named payee. The piece of paper upon which he writes this order is a "check." If he deposits money, he writes the memorandum of the amount upon a ruled slip of paper and this is the "deposit ticket." Bookkeepers enter debit and credit records upon their journals directly from these items. Money, however, may change hands or from one account to another, in other ways; by letter, telegram or other debit and credit advice. In such cases a "charge ticket" or "credit slip," as the case may be, is signed or initialed by an officer of the bank, and entry with full explanation is made upon a book from which

record the bookkeeper makes his entries. This book is known as a "scratcher," "tickler" or a "blotter." The terms mean practically the same thing. A book upon which a complete description of a negotiable instrument or transaction is made for a permanent record or for reference, is called a register. For example, bond register, collection register, etc.

All other books, cards, sheets of whatever nature are a part or subdivisions of these books. Often they become known among the clerks by some other name descriptive of their general appearance. For instance, the general ledger scratcher in one bank is known as the "red book," while the collection department scratcher is the "black book." These names have stuck through generations of clerks, and a young man going into another bank has been known to ask for the "black book," and being untrained in accounting, he had difficulty in making himself understood. Similarly, in New York City banks the pigeonholed desk where checks are assorted for the clearing house is generally known as the "clearing house rack." A New York bank clerk visiting a Philadelphia institution and asking to see the "rack" would probably be shown a hat room.

The records made by one clerk upon one set of books, in a well-appointed accounting system, go to check the records of another clerk upon a different set of books. For instance, the paying teller and the receiving teller will each keep a record of checks cashed or deposited payable within the bank. The debit postings of the individual bookkeeper would agree with the teller's figures. Skillful accounting lies in making the fullest possible use of original entries, at the same time having a check on all figures to guard against either error or fraud. Many young bank men have materially increased their salaries and rate of promotion by devising improved accounting methods.

As has been said, every transaction ultimately affects the bank's statement of condition by debit or credit. Refer again to the outline statement shown in the preceding chapter. A deposit of $1,000.00 is made, consisting of $200.00 cash, and checks as follows: $200.00 on the bank itself and $600.00 payable in another city. At the end of the day (assuming this to be the only deposit), on the liabilities side there is an increase of $800.00, all of which appears in the item "deposits" being the total $1,000.00, less the check for $200.00 which is charged to the account of the drawer. On the resource side, then, we must have a corresponding increase of $800.00, and this is made up by an increase in the cash of $200.00 and an increase of $600.00 in the item "due from banks." Or a transaction may appear on one side of the statement only. The bank has sold $5,000.00 of the bonds it owns. The bond item of resources would show a reduction of this amount, and either "cash" or "due from banks" would be increased, depending whether payment was made in cash or by check. If payment for the bonds is made with a check on the bank itself, both sides of the statement are affected, a corresponding reduction in deposits taking place. How these various transactions are recorded will be discussed in more detail in the following chapters.

Receiving Teller

A bank teller is a senior clerk who deals with the bank's customers—chiefly depositors—in daily transactions across his counter. In very small banks one man will act both as receiving teller and paying teller, as well as note teller and collection teller; he is the Teller, and he may be an official as well. In many large banks, particularly in the west, an arbitrary alphabetical division is made of the accounts of the bank and each group is treated as a separate unit. Under this plan, it is as if there were several small banks operating under one roof. Each teller acts as both paying and receiving teller for his own group, to which bookkeepers are also assigned. This plan has several advantages. The depositors are not often held up in a single long line on busy days; the teller is not put to the strain of knowing the faces and signatures of all the depositors; the money can be handled more easily and if differences should occur they are confined within limits.

But, as has been stated, the duty goes with the office rather than with the man, and whether the bank employs a separate receiving teller or not, there are certain duties and responsibilities peculiar to the position. Therefore, in this chapter, as in those following, we will assume, for convenience of illustration, that a separate employee is assigned to each of the desks or departments thus described.

The principal business of the receiving teller is to receive deposits. Responsibility of no mean order rests upon the teller, because he acts as the agent of the bank in the relation established between the depositor and the institution. He must be on his guard at all times. His first care is to assure himself that the deposit is intended for his bank. Many people have two or more bank accounts and sometimes confuse the pass-books. The amount of the deposit

is entered in the pass-book as a receipt. In a savings bank the pass-book is more than a receipt: it is a voucher or evidence of contract between the bank and the depositor.

If the bank is one that deals with a large number of depositors who make deposits of any size or quantity of checks, the teller will merely satisfy himself that the checks are endorsed by the bank's customer, enter the amount in the pass-book and examine or prove the ticket later. This prevents a long line of depositors from becoming impatient of delay. If errors are found they are reported by telephone, and since the bank will have been careful in the first place as to whom it accepts as depositors, there is but slight risk that an error may not be satisfactorily adjusted at the end of the day, without loss to the bank. But whether it is done first or last, by the teller himself or by his assistants, each deposit is subjected to the same process of proving. The cash is counted and care taken that there are no counterfeit bills or coins included. The checks are examined to see that they are properly listed and endorsed. In cities where the banks charge their customers exchange on out-of-town checks, the receiving teller sees to it that the proper amount of exchange is deducted. As for checks on his own bank that may be deposited, the receiving teller is governed by the same rules that apply to the paying teller, that is, he must know the signature and also be certain that the check is "good," etc. Finally, he proves or tests the addition of the ticket. The total is listed on his blotter or scratcher and the ticket is then given to the bookkeeper.

The various items that make up the deposit are then ready for distribution. The checks on the bank itself go to the bookkeepers; checks on other banks in the same town go either to the clerks making up the exchanges for the clearing house or to the runners' or messengers' de-

partment for presentation. Out-of-town checks go to the "transit department," where they are assorted as to place payable and forwarded for collection and returns. If the bank is small, the receiving teller may handle all these various checks in his own department, but ordinarily they will be distributed to other departments which are really subdivisions of the receiving teller's department. The most important of these departments in point of size and responsibility is the transit department.

We will describe such a department in a city bank. It so happens that out-of-town, or "country checks," can be handled and collected more economically in quantities, hence country banks and many city trust and savings institutions send these items to a city commercial bank which may make a specialty of collecting them. The receiving teller, theoretically at least, will receive these items through the mail, although when so deposited they actually do not leave the hands of the transit clerks who open and prove the incoming remittances or deposits. The teller adds the figures of the mail deposits to those of counter or "window" deposits. The transit clerks assort the checks geographically, placing together checks that are payable in the same part of the state or country. They are then endorsed with the bank's stamp and listed on letters addressed to the bank's correspondents. At the end of the day the totals of the outgoing letters must equal the total of the checks which are charged to the transit department by the receiving teller. The bookkeeper charges the total of each individual outgoing letter to the bank to whom sent, and the grand total increases the general ledger item "due from banks" by that amount.

The receiving teller's settlement is quite simple. He begins the day without any funds. As deposits come in he lists them, as to totals on a scratcher, writing the name

of the depositor opposite the amount. At the end of the day the totals of the checks he has received and charged to the different departments of the bank according to place of payment, plus the cash he holds, must equal the total deposits for that day. Settlement being made, he then turns his cash over to the paying teller, who usually does not count it until the next morning. In many banks the receiving teller acts as the "clearing house" for the other departments. For instance, checks on other institutions will be cashed by the paying teller, or given to the note teller in payment of notes, or paid to the loan clerk for loans, or the bank's draft on another city may be bought with a personal check. All these departments may give over such receipts to the receiving teller who adds the totals to his individual deposits in making his settlement. Charge and credit tickets would be handled similarly. The student should keep it clear that such work is incidental to the business, and it does not follow that because it may be the note teller, paying teller or some other clerk who does this internal accounting for various kinds of receipts, that his bank is "different."

The general adoption of the "batch" or "block" system has been a boon to the accounting done by the receiving teller, and this plan is now in operation in all modern banks. Under this system the correctness of the deposit ticket is not tested as to listing or addition when received. Instead, the ticket is handed to an assistant, who assorts the items in groups, for example, self-checks, clearing house checks, non-clearing local checks, out-of-town checks and money. Further division may be made of any of these groups if the size of the bank warrants. The items are then listed on an adding machine in parallel columns, each of which is headed by the name of the department which will receive the checks. The totals are then "picked up" or recapitu-

lated, and must agree with the total of the ticket which is listed in another column on the sheet and the name of the depositor added opposite. If the deposits are small, several are combined on one sheet. At the end of the day a total is made of each column on all the sheets, or "blocks," and these being recapitulated must equal the total deposits which is the teller's proof. The advantages of this plan are many. No effort or time is lost in the original proof of the ticket. As the items are listed in separate columns, a total is arrived at which not only proves the ticket, but gives separate totals which other departments use to prove their own work against. If differences occur, they are segregated into groups and thus can be more easily located.

TYPICAL DISTRIBUTION SHEET USED IN THE BLOCK SYSTEM

Country Checks	City Checks	Checks on this bank	Cash
$162.29	$29.16	$110.28	$116.22
15.27	4.22	92.15	
222.12	.87	47.16	
83.33	926.12	523.06	
1,000.00		10.00	
	$960.37		
$1,483.01		$782.65	
	Recapitulation	Deposits	Depositors
	$1,483.01	$1,826.10	Smith & Co.
	960.37	4.22	John Doe
	782.65	1,511.93	S. Williams
	116.22		
	$3,342.25	$3,342.25	

Paying Teller

The paying teller's duties are the direct opposite of the receiving teller's. It is often said that the paying teller has the most important position in the bank because on him falls the responsibility of paying out the bank's funds. It is not questioning the measure of his responsibility to point out that it is not the bank's funds, but the depositors' money that he is called upon to pay. If this money is paid to the wrong person, the bank is liable to pay it again to the proper payee, and if the teller pays out some of the bank's money, as well as the depositor's, in other words, permits an overdraft, then again the bank loses. This teller, therefore, stands between the bank and loss. Even more than the receiving teller, his personality, his mental and physical make-up must leave nothing to be desired. He must be courteous, patient, alert, well-informed as to business methods in general, keen and resourceful. Above all, the teller, whether paying or receiving, must know his own bank thoroughly. Tellers almost invariably are graduates of many years' experience in the bank.

When a check is presented for payment at the window, the teller must be assured of the following facts: that the signature of the drawer is genuine; that the person presenting the check is the payee, or if the check has more than one endorsement, that such endorsements are all present and the person who asks payment is the last endorser; that the balance of the drawer is sufficient to cover the amount of the check; that the check is not dated ahead; that there is no order from the drawer on file to stop payment. The teller must be certain of all these provisions; he can not afford to take any chances. Furthermore, he must have all necessary information at his fingers' ends. The average bank customer does not realize that it is for

his good that the teller hesitates or insists upon identification. He immediately thinks his own credit is in question. Consequently the trained teller is diplomatic and will engage the payee in conversation while an assistant may look up the required information, or he may satisfy himself in other ways that everything is all right without irritating the holder of the check. When a check is presented for certification, the paying teller takes the same precautions with respect to the genuineness of the signature, balance of the drawer and the question of payment being stopped as if the check were presented for payment. The matter of endorsement will be taken care of when the certified check is finally presented for payment. Checks are certified by writing or stamping across the face "Certified. Good when properly endorsed." The date and name of the bank with the signature of an officer or teller is added. The account of the drawer is charged at once and the effect is that the bank thereupon assumes the liability for the payment of the check.

The paying teller is the guardian of the bank's funds. He usually has custody of the vault and reserve cash. He sees that the supply of money in various denominations is at all times sufficient for the needs of the customers and is properly arranged for quick handling. Money paid out is counted twice before leaving his hands, but in order to avoid one handling while the line before his window waits, he will have bills crossed in piles, or under bands, containing so many one's, two's, or five's, as the case may be. Coins are neatly piled or rolled in sealed wrappers. This work is done by assistants during the day.

The bulk of the vault or reserve cash, which we will discuss later, is seldom disturbed. It is usually kept in an inner compartment requiring a duplicate key held by an officer. The teller has a record of the total of this money

and of the denominations into which it is divided. The amount of counter or window cash which is brought from the vault to the cage each day is listed in the settlement book, and with this money the teller begins the day's work. During the entire day he is paying out cash for checks, or shipping it to out-of-town correspondents of the bank upon their written or telegraphic order. His settlement at the end of the day is even more simple than the receiving teller's. The amount of the checks he has cashed and handed to the bookkeepers (or if they are payable at other banks, to the receiving teller), plus the amount of cash on hand, must equal the amount he began the day with. As soon as he has settled, he adds to his own cash the cash which is handed him by the receiving and other tellers, and this sum is then carried forward to begin the next day's work.

The settlement of a teller who is both paying and receiving teller is a combination of the two. The teller begins the day with a cash balance on hand. He adds to this amount the deposits, receipts for interest on loans, drafts sold, exchange, etc., received during the day. At the close of business, the total of his cash on hand plus checks for other banks and checks on his own bank (which have been cashed), must equal his total receipts.

Since the paying teller has charge of the reserve funds of the bank, we will discuss briefly the principles of calculating reserve. Bank reserve may be defined as the funds of the bank that are uninvested. In this country the law prescribes both the percentage of reserve that must be kept and also where and of what kind it must be. In nearly all other countries, however, the rate of reserve to deposits is not fixed by law, but is left to the experienced judgment of the bank itself. The purpose of reserve is not only to care for the normal cash needs of the depositors, but also to prevent undue expansion of bank loans. If there were

no legal or ordinary business restriction on bank loans we might expect to see all the bank's funds loaned out, and we have seen in an earlier chapter how unsafe such a condition would be.

Reserve is calculated on net deposits, that is, deposits that have been collected. Referring to the outline of the bank statement again, we understand that if a check for $1,000.00 payable in Chicago is deposited in a Boston bank, the deposits of the Boston institution have apparently increased $1,000.00 and the item, "due from banks," on the other side, has increased the same amount. The $1,000.00 is really not a part of the deposits because it is not yet collected, and good banking does not permit a depositor to draw against uncollected funds. Therefore, in estimating reserve, we subtract from the gross deposits all the items on the resource side representing unpaid checks. We except "due from reserve agents," because such amounts are collected funds subject to the draft of the bank. A certain percentage of the net deposits must be kept as a reserve, part of which must be in cash and another part may be with a reserve agent, but the full amount must be carried or the bank may not make any new loans or declare a dividend until the reserve is restored. The percentage varies depending upon the kind and location of the bank. One of the functions of the Federal reserve banks is to carry the reserves of the national and other member banks, or that part of the reserves which banks may keep on deposit outside their own vaults. The importance of this provision of the Act is indicated by the fact that it is entitled the Reserve Act. Under it the reserves of all the member banks are concentrated in the Federal reserve bank of the district. The combined reserves of which the deposits of the reserve banks consist, are thus available for the relief of any member needing additional cash. The

member borrows money from the reserve bank by re-discounting its commercial loans, which increases the amount "due from the Federal reserve bank" by the amount re-discounted.

TYPICAL RECEIVING TELLER'S SETTLEMENT

Individual deposits		$152,136.07	
Deposits from other banks		89,422.12	
Receipts from note teller		1,234.16	
Receipts from paying teller		972.17	
Receipts from exchange teller (drafts sold)		2,500.00	
Total receipts			$246,264.52
Checks charged to individual ledgers		$98,422.10	
Drafts charged to general ledger		10,102.50	
Out-of-town checks to transit department		47,203.10	
Exchanges from clearing house		50,522.25	
		$206,249.95	
Cash to Paying Teller:			
Gold	$10,122.00		
Legal tenders	3,225.00		
National bank notes	5,000.00		
Gold certificates	3,700.00		
Silver certificates	12,522.00		
Silver dollars	5,221.00		
Fractional	224.57		
		40,014.57	$246,264.52

TYPICAL PAYING TELLER'S SETTLEMENT

From yesterday's settlement:	(Itemized as to denominations)	
Vault cash	$58,222.00	
Paying teller's cash	41,922.16	
Cash from receiving teller	40,014.57	
Cash from note teller	12,103.10	
Exchanges from clearing house	72,103.15	
Total receipts		$224,364.98
Charged to ledger, A to K	$44,622.10	
Charged to ledger, L to Z	31,203.15	
Charged to general ledger (bank accounts, etc.)	20,403.16	
Checks to receiving teller	4,322.79	100,551.20
Cash balance		$123,813.78

Vault Cash	$64.500.00
(Changes in this item during the day might be noted on a separate sheet.)	
Gold	$10,500.00
Legal tenders	24,250.00
National bank notes	7,550.00
Gold certificates	5,000.00
Silver certificates	4,772.00
Silver dollars	6,278.00
Fractional	963.78
To next settlement	$123,813.78

Note Teller

Negotiable instruments are forms used in the business world for the transfer of values. In the ordinary transactions of commerce, they take the place of actual money. We have learned in an earlier chapter that money represents value and negotiable instruments are used as substitutes for money. They are of several kinds. Checks and bank drafts are payable by banks on demand and hence may be treated as cash. Notes and drafts, however, do not ordinarily possess this facility, since they are usually payable on a certain date and they are paid by individuals rather than by banks. Therefore they must be handled by banks as individual, separate pieces, each requiring care and diligence in presentation and collection. Drafts on individuals must be presented to the drawee either for payment or acceptance, and notes must be at the place where they are made payable on the day they are due. Banks undertake to collect these items for their customers and pass the proceeds to the credit of their depositors. This function is incidental to commercial banking, the bank acting as the agent of the owner of the paper to be collected.

In small banks it is not unusual to see a brass sign displayed at the receiving teller's window, reading "pay notes here." Although they are not required to do so by law, all banks send notices to the makers of notes or the drawees of drafts that they hold the note or draft awaiting payment, and some one of the tellers or clerks is assigned the duty of receiving payment. As the bank grows, a separate department is organized for this purpose and a note teller is appointed. He is usually in charge of the messengers or runners. Instead of sending out notices, the bank may render its customers better service by having its messengers present the items for payment at the place of business of

the payer. The messengers also present checks for payment at banks not represented in the clearing house, collect coupons and return unpaid checks to depositors. It is necessary that they should exercise great care in all these transactions, since, for the time being, they are the accredited representatives of the bank and the bank is bound by their actions.

We can show this by discussing the duties and responsibilities of the note teller, the messengers being his assistants. He keeps a register record of all the "time" items that are placed in his hands for collection. This record consists of the name of the payer, the endorser, or the owner of the item for whom the bank is making collection, the date of maturity, the amount, and whether the item is to be protested or not if unpaid. There may be other instructions, as, for example, a request for telegraphic advice of payment. A column is used to record the final disposition of the item which in banking parlance is called "fate." Usually a separate register is used for drafts because they may require particular care. They are often accompanied by bills of lading or other documents that are to be delivered only when the drawee has paid the draft. Drafts are often made payable "on arrival of goods," and the note teller keeps in touch with the drawee so that there may be no unreasonable delay after the goods covered by the draft have reached their destination.

The chief responsibility resting upon the note teller and his assistants is to see that all items are properly presented to the right parties and at the right time. What due presentment consists of is a legal point which we need not discuss here, except to say that the bank must do its utmost to reach the payer and secure payment. Only cash can be accepted in payment, although all banks will take checks from responsible parties when drawn upon solvent banks.

The custom is to require that checks presented in payment of notes or drafts should be certified. (When a check is certified the bank charges the account of the drawer at once, and the check becomes an obligation upon the bank rather than upon the drawer.)

When checks, notes or drafts are not paid when due or when properly presented for payment they may be protested. This consists of presentation by the bank's legal representative who demands payment. If the item is then unpaid, notice to that effect is sent to the maker or drawer and all endorsers. The endorsers on negotiable instruments are under obligations to pay in case the drawer or drawee does not, provided they are served with notice that payment has been legally demanded and refused. The protest is notice to them that proper presentation has been made.

In making his proof the note teller enters on one side of a sheet the name and amount of each note, draft or check which is to be collected on that day. As the items are paid, he extends the amount in another column and opposite he makes a memo of the funds he has received. This memo is technically called the "satisfaction" of that particular entry. The total of the items thus "satisfied" at the end of the day must be equalled by the cash and checks which the note teller hands over to the paying and receiving tellers.

A subdivision of the note teller's department is the collection department, although some banks are organized with the latter as a subdivision of the transit department. The collection teller, as the head of the department may be known, is charged with the collection of notes and drafts payable out of town. These items cannot be listed with checks and cash items, but are entered on separate sheets. The same methods of bookkeeping and collection apply as with out-of-town cash items, except that credits and debits

are made only upon receipt of advice that the items are paid. Checks and cash items, on the other hand, are credited to the depositors on the day of deposit, subject, of course, to final payment. That is, if the items are "not good," they will be returned and the account of the depositor will be charged. This plan is adopted for mutual convenience made necessary by the great numbers of checks that are deposited daily in every bank. If every separate item required a special advice of payment and would be credited only upon receipt of such advice, banks would be compelled to increase the number of their clerks enormously.

Out-of-town collections are governed by the same rules as city collections. The collection clerk or teller makes a register record of the name of the payer, the place payable, the endorser, and the amount together with other instructions. Usually this record is entered on slips made with carbon copies, and the slips are filed in drawers or cases until advice is received. If the bank is notified by its bank correspondent that an item has been paid, the slip is taken out and marked "Paid." It is then handed to the bookkeepers. Using the slip as a debit or credit memorandum the account of the depositor is credited and the account of the bank to whom the item was sent is debited.

The collection teller is responsible for the items entrusted to his care. He must see to it that notes reach the town where they are payable before maturity, that drafts are sent to responsible banks for collection, that all instructions sent with the items are fully obeyed and that correct and prompt advice of payment or dishonor is received.

Individual Ledgers

The individual ledgers are the books upon which the detail records of the deposits are kept. Such records consist of either debits or credits and the balance. Modern ledgers allow three columns to each account, one for debits, one for credits and one for the balance, although many banks still use the two-column ledger, the credits being posted beneath the balance which is extended in red ink. Bound ledgers are gradually giving way to loose sheets or cards, each account having a separate leaf or card. This plan is much more convenient since closed or "dead" accounts can be eliminated and inactive accounts can be kept separate from those that are active. It is also easier to make alphabetical splits in the ledgers when an increase of work makes it necessary.

While there are several bookkeeping systems employed by banks, they are all alike in principle and vary only because the business of the customers warrants different labor-saving methods on the part of the bank. For example, active commercial accounts require considerable posting of checks and deposit tickets daily and the balances are constantly changing. Savings banks, on the other hand, deal with a class of people who make deposits only at irregular intervals and withdrawals are also infrequent. We will discuss the methods usually employed in a commercial bank using the three-column, loose-leaf ledger.

The bookkeeper receives checks from both the paying and receiving tellers, although in some very large banks they come to him from the check teller who assorts the checks as to the ledgers and examines the signatures and the endorsements. Sometimes the bookkeeper is held responsible for the payment of a check bearing a forged or incorrect signature or endorsement, but usually his liability

in this direction is limited to "stop-payments." A good bookkeeper, however, whether he is specifically charged with this duty or not, is always on guard against irregularities. Checks come in "courses" from the tellers, that is, at certain times during the day, after exchanges are received from the clearing house, or the morning mail is opened and at other fixed periods, batches of checks come into the bookkeeper's hands. He assorts them alphabetically and enters them upon a journal which is usually a loose sheet that fits into an adding machine. A total of the checks of each depositor is struck and these totals are then posted in the debit columns against the proper accounts. There are ledgers in use which have an extra column for detail checks, so that no journal is necessary. As the bookkeeper posts, he watches the balances to see that the accounts are not overdrawn. He must be extremely careful not to post checks to the wrong account. This is very apt to happen if the bookkeeper is careless, because nearly all banks have accounts of similar, and sometimes identical names. If a check drawn by John A. Smith is refused as not good because the account has been apparently overdrawn by certain checks that should have been charged to John E. Smith, the bank is not only apt to lose a good account, but may even be liable to John A. Smith for whatever damage his credit has suffered.

Alternating with the posting of debits, the bookkeeper posts the credits or deposit tickets which also run in "courses." In making credit entries as much care must be observed as in posting debits and for the same reasons. In addition to the deposit ticket entries there may be other kinds of credits. If the depositor has received a loan, the bookkeeper receives advice of the amount from the loan clerk and opposite the amount in the credit column he may place a mark, "L" meaning loan, "N" meaning note, or

"D" meaning discount. If a collection item has been paid, the credit will be marked "C." These marks are merely an abbreviated method of identifying entries, of assistance in the process of examining the accounts of the bank.

At the end of the day the bookkeeper puts all his checks together in alphabetical order and arranges the deposit tickets similarly. Most banks are now using the "statement system" of balancing pass-books. This work is done by a separate clerk or subdivision of the bookkeeping department. Each depositor has a separate sheet or statement on which are entered the daily transactions. This is sometimes called the "skeleton ledger," because its chief purpose is to show the daily balance of each account rather than the detail. Since all the checks and deposit tickets are posted the following day, and hence are available for posting without any delay, the statement clerk is able to handle many more accounts than the bookkeeper whose work comes to him in relays. After the checks and tickets are entered on the statement, they are filed away, the deposit tickets remaining in possession of the bank and the checks being handed to the depositor at the end of the month. Time was when the checks were also retained (as they still are in some foreign banks), but the custom has grown in this country to regard the endorsement on a check as a receipt in payment of a debt. The completed monthly statements, showing the balance of each depositor, are compared with the ledger balances to prove the correctness of the amounts and they are then given to the depositors. Under the pass-book settlement system, the deposit entries in the book are added to the last settlement balance, the checks are listed on an adding machine and the total is deducted, showing the new balance which must agree with the ledger balance.

Probably the first thing the bookkeeper will do in the

morning is to make up a list of balances of all the important accounts. This is usually a pencil memorandum and is handed to the paying teller or an officer for their information and guidance. Another duty to be performed at odd moments during the day is keeping the record of interest bearing balances. Banks differ as to the method of calculating the net balance upon which interest is allowed. The usual, and incidentally, the soundest method is to deduct from the balance the amount of checks presented against it that day and the amount of uncollected checks represented by deposits of out-of-town items deposited during the preceding days. The length of time such deductions cover is governed by the distance and time taken in collecting them. Interest is then allowed on the net balance since this represents the true balance of the depositor available for loans. The principle is the same as that underlying the calculation of reserve.

INDIVIDUAL BOOKKEEPER'S SETTLEMENT

Paying Teller checks.....	$29,316.10	Balance Aug. 1.	$206,142.10
Receiving Teller checks.....	11,416.05	Deposits.....	52,143.16
Balance Aug. 2.	221,677.26	Collections.....	1,624.15
		Loans.....	2,500.00
	$262,409.41		$262,409.41

Few modern banks—if we except the mutual savings banks—use the "trial balance" system of settlement for the individual ledgers. Settlement is made daily. The bookkeeper begins the day with a total of all the balances as they were at the close of the preceding day's business.

After he has finished the day's postings, he makes his proof by adding all the credits to this balance total and then subtracts the debits or total of checks as shown on his journals. The sum of the new balances which he gets by running his accounts on an adding machine must equal the figures shown on his calculation.

As an illustration of the way in which the figures of one clerk serve as a check on the figures of another, the bookkeeper's proof furnishes a good example. The totals of checks charged against the various accounts are taken from the bookkeeper's journal and these totals must agree with the figures the tellers use in their own settlements. This is also true of the total of deposits, etc.

General Ledger

The general ledger bookkeeper is the Bookkeeper of the Bank. It may be said that all other books and records are a part of the general ledger. Every transaction of whatever nature gravitates to this ledger. The keeper of the general ledger may be said to be the dealer in wholesale figures; the other clerks are the retailers. He has to do with totals of completed transactions; the tellers and other bookkeepers are concerned with the details. The accounts on the general ledger consist of the items in the bank's statement of condition, known as the "control accounts."

The general ledger bookkeeper makes his postings at the end of the day or the first thing in the morning before the bank has opened for business. No matter how large the bank may be, this posting of debit and credit totals takes but very little time, and in small banks the cashier may do this work. More often the clerk who "runs" the individual ledger is also responsible for the general ledger.

In large banks the head bookkeeper (as he is sometimes called) is given additional duties and responsibilities. He makes the daily calculation of reserve and keeps the record of the earnings and similar data. Most banks keep a book which is known as the "daily comparative statement" book. In this book a record is kept showing the figures of each day side by side with the same items of that day the previous year or years. These "vital statistics" are of great interest and value to the officers and directors and often serve as a guide that will indicate what may be expected. With this knowledge thus tabulated, the bank is able to serve its patrons more intelligently, since by using the law of averages a reasonable forecast can be made and the needs of depositors and borrowers may be anticipated.

One of the important items in the general ledger is the

discount account in which the earnings of the bank are entered. When a loan is made the interest charged by the bank is entered in this account. At regular intervals, usually once each six months, discount account is charged and the expense account is credited a sufficient amount to pay for salaries and other expenses. If the bank has been prosperous a dividend is declared and an amount set aside among the liabilities as "Dividend Number 74," or whatever the number may be. Checks bearing this dividend number, signed by the cashier, are then mailed to the stockholders, and as they are presented for payment they are charged to dividend account. Any additional sum remaining in discount account may then be carried into "Undivided Profits," or, if large enough, will be added to the surplus. The stock book which contains the names of the stockholders and the number of shares held by each, may also be kept by the head bookkeeper.

The general bookkeeper usually has charge of the accounts with other banks. These are kept just as the individual accounts are, and are subject to the same kinds of debits and credits. In addition to the credit accounts, or those accounts which represent the balances of other banks, there are usually many debit balances, which in total are carried on the general ledger as "due from banks." As each day's letters containing checks are sent to correspondent banks, the amount of such checks are debited to these banks. As remittances are received in payment, the accounts are credited. A daily record is kept of each account, known either as the "statement" or "account current," and at the end of the month this statement is ruled up and forwarded to the correspondent banks for "reconcilement."

Since there are letters in transit, drafts not yet paid, collection credits, returned items and other entries con-

To the TENTH NATIONAL BANK of New York:

We have received statement of our account showing balance due us, $10,926.30, which agrees with our books with the exceptions noted.

		August 1, 1914.	
Your books show balance to our credit	$10,926.30	Drafts drawn by us not in your statement:	
		No. 1624	$500.00
Our remittance letters to you in transit:		No. 1625	226.10
July 29	1,627.10		
July 30	2,541.16	We credit, you do not charge.	
		Note, Jones, July 10	100.00
We charge, you do not credit.			
Collection, July 16	50.00	Our books show balance to your debit	14,332.72
Retd. item, July 28	14.26		
	$15,158.82		$15,158.82

Yours truly,

FARMER'S BANK.

stantly "in the air" between two banks that do business with each other, this reconcilement is necessary if the accounts are to be settled as of any given day. It is very interesting work and an example of the method used may be given. We will assume that a city bank has sent a monthly statement to a country bank showing the actual debits and credits for the month and the balance due the country bank. The country bank would then fill out a reconcilement blank about as shown on the previous page and mail it to the city bank.

The purpose of the reconcilement, as will be seen, is to account for the difference between the balances shown on the books of the two banks on the same date. Errors or omissions of debit or credit entries are then adjusted.

Loans and Discounts

Banks exist, as we have learned, in order that the surplus wealth which is stored up may be loaned out and put to use through commerce, trade and industry in the production of more wealth. Banks perform this function through the medium of loans and discounts. The difference between the two terms is purely technical. All bank investments, whether by the discount of promissory notes, straight loans, mortgages or bonds, are loans.

We can best understand this subject from the viewpoint of the borrower. A purchases $1,000.00 worth of leather from B, which A intends to manufacture into shoes, which he will sell at a profit. The whole operation, from the time the leather is secured until the shoes are sold, will take A three months, let us say. He, therefore, executes a note in which he promises to pay B $1,000.00 ninety days from date. B, however, prefers not to wait until the note matures, that is to say, the time A will have received the money for the shoes with which he will pay for the leather used. B can use the money in his own business at the present time. He takes the note, A's promise to pay, to the bank and the bank "discounts" it; that is, the bank gives B credit for the amount of the note less the interest for ninety days. In effect, the bank has loaned B $1,000.00 for three months, but at the end of that time, when the note falls due, it is A who repays the bank and not B. Discounting may be defined as the process through which future maturities are converted into immediate cash.

In the above case the bank has loaned B money on the security of A's note. This transaction, in which three parties are involved, A, B and the bank, is commonly called "discount." The technical term "loan" is applied when there are only two parties directly concerned, the bank

and the borrower. For instance, let us suppose A, a regular customer of B, has bought $1,000.00 worth of leather. Two other methods of making payment in which banking is involved are possible in addition to the first example given. B may offer A a discount if the bill is paid in cash within ten days. In order to take advantage of this discount, A will go to the bank and borrow the $1,000.00 with which to make immediate payment. He makes the note payable to the bank instead of to B, secures the money and makes payment, thus getting the advantage of the discount offered by B. It will be noticed that B is put to practically the same expense in either case. Still another practice would be for B to extend credit to A on what is known as "open account." That is, for a certain period agreed upon between buyer and seller, B's books will show that A owes him $1,000.00. But B needs cash. He does just what A did in the preceding example: he borrows money from the bank on his own note.

In the case of the discount, if A fails to pay the note when due, the bank may look to B, who has endorsed the note, upon the strength of which B was able to borrow from the bank. In the case of the loan, however, with no third party involved, the bank often requires protection in the shape of collateral, such as stocks, bonds, warehouse receipts or any other negotiable paper. Or the security may be real estate, if the bank is permitted by law to make loans secured by real estate.

There is a wise provision in the National Bank Act which limits the amount a bank may loan to one individual or interest to 10% of the bank's capital and surplus. Many states have a similar law, the purpose of which will be discussed in a later chapter. It becomes necessary, therefore, for large industries which borrow heavily to distribute their loans among many banks. This is accomplished

through note brokers, who "buy" the notes of such firms and then "sell" them to any bank having more funds than there is demand for from their own local customers. These notes are known as "commercial paper." Banks often find themselves in the same need of cash for reserve or other purposes as individuals or corporations, and they, too, take advantage of the process of discounting by rediscounting their loans with the Federal reserve banks.

Loans are of several kinds in addition to the ordinary commercial loans or discounts which we have been discussing. People who deal in goods, such as manufacturers, jobbers, retailers and the like, need money at certain seasons to buy raw materials, replenish stock, pay for labor, etc. Loans for these purposes have fixed maturities because the money will be "turned over" in a definite time, represented by the period between the production and consumption of the commodity dealt in. Dealers in credit and money, investors, brokers and kindred lines borrow money for indefinite periods, since there are no certain rules which govern the demand for their goods. A man will buy an overcoat in the fall of the year, but he may buy a bond or a piece of property at any time. Hence we have the "demand loan" which may be paid at any time at the option of either the borrower or the bank. The "call loan," usually found in cities where there is a stock exchange, is of the same nature. Call and demand loans are almost invariably secured by collateral. Mortgage loans are loans secured by a pledge of real estate or personal property. In the West growing crops or live stock are frequently used as mortgage security.

Loans and discounts are handled by an officer of a small bank, but in larger institutions a separate department has charge of the records and the mechanical details of the work, although the actual loaning of the bank's money is

always done by an officer of the institution, regardless of its size or kind. A kind of journal record is kept of the loans made each day. Sometimes this book is known as the "Offering Book," in which is entered every note offered for discount. Those not accepted, or undesirable loans, are stricken off this original book of entry. The loans made are transferred to the loan or discount register. This is usually a double page book, the record extending across two pages. In columns of suitable width are entered the following records of each loan: maker, endorser (or collateral), amount, where payable, when due, rate, discount, proceeds. This record may vary as to details. For example, one register may be used for both time and demand loans, secured or unsecured, etc., while other banks may find it advisable to use a separate register for each kind of loan, or if a single register is used, further detail is provided for.

The loans are then posted on the Liability Ledger. This record consists of the "liability balance" of each borrower, either on notes he has signed or notes he has endorsed. His liability as borrower is kept in columns separate from his liability as endorser or surety. The first record may be used in accounting, since the sum of the balances due by all borrowers will prove the corresponding figures on the general ledger, while the figures showing liability as endorser or surety are useful chiefly for credit purposes. The loans are next posted on the maturity tickler, which is simply a daily memorandum of loans as they fall due. This completes the records, the notes being then filed in a portfolio in the order of their maturity. Collateral is listed upon cards and then placed in a proper vault, or the collateral may be recorded upon the face of an envelope in which it is enclosed. Provision is made for keeping records of substitutions of collateral, and when the borrower pays the loan he signs a receipt for the collateral which is returned to him.

The bank, if it be a commercial bank, is always careful to invest its money in loans that mature in regular order. That is, unless loans are falling due each day, the bank will not be in position to extend credit to its customers as they need it. The loaning officers keep close watch on the maturity tickler which guides them in placing loans. There are seasonal demands for money, as for example, the crop moving period, when there must be plenty of money available for the needs of borrowers. Not all the bank's customers are borrowers, however; the needs of the depositor must also be taken into consideration. When a bank makes a loan, the usual practice is to increase the deposit account of the borrower by the amount of the loan. As a depositor the borrower is given the privilege of drawing checks against his balance, and the bank must be in position to meet not only normal demands, but also unusual and at times unexpected withdrawals. It would not be able to do this if all the loans were of one kind. A certain proportion of its funds may be loaned on "commercial paper," that is, notes bought from brokers which the bank is under no obligation to renew at maturity. Still another portion may be invested in good bonds that will find a ready market in case of need. These may be sold if it is necessary to increase the supply of cash. Bonds furnish such an excellent form of liquid investment in this connection that they are sometimes called "secondary reserve." Before taking up the subject of bonds and their uses, we will discuss the credit department.

Let us go back to our little country bank, situated in a town of five hundred people. Here we would find every member of the board of directors, the president, cashier and the general clerk of the bank more or less intimately acquainted with every business man in town. If a customer of the bank offers a note for discount, the cashier

seldom needs to ask questions. He knows the character of the borrower, his next door neighbor, perhaps. He knows about his client's business needs and habits, because he himself does business with him. He is therefore able to decide whether or not the loan is a "safe risk" out of his own knowledge of the facts. In a larger community it would be impractical, if not impossible, for the cashier, in addition to his other duties, to keep track of every local borrower and the bank may employ a "credit man" who specializes in credits. The next step is the organization of a credit department usually in charge of one of the officers of the bank.

The credit department collects and files every available bit of information concerning people or firms that borrow money. This material consists of financial reports, press clippings, personal interviews, statements of condition and, in fact, every item that has even a remote bearing upon the standing of borrowers. It requires technical training of a high order to properly classify and analyse this data, but the fundamental idea is to get down to the same knowledge of the true facts as our country bank cashier has at his command, with respect to his neighbor. Credit is based upon character or, as bankers put it, the "moral risk." A simple, but practical definition of credit is "the ability to buy with a promise to pay." He who has "good credit" can command either goods or money because of the faith or belief that others have in his promise. The word "credit" is derived from the Latin "Credo"—I believe. It is not only essential that the borrower have the ability to pay his note when it is due; he must also have the desire or inclination to pay. To be able to loan money wisely and to those who are entitled to it, in short, the ability to distinguish between a safe risk and an unsafe one, is the quality that marks the good banker.

Stocks and Bonds

In a previous chapter we discussed the importance of capital and how it arises as the result of the creation of surplus wealth. A bank was described as a storehouse where this accumulated surplus is gathered together and loaned out to those who need it in carrying on agricultural, industrial and commercial enterprises. Not all capital is of the same kind; it is either "fixed" or "circulating." Fixed capital is represented by such things as buildings, tools, machinery, rolling stock, etc. It is fixed in the sense that it needs to be renewed only at long intervals. Circulating capital, on the other hand, must be constantly renewed and it is represented by the things for which money is borrowed from banks—raw materials, fuel, funds for wages, etc. Fixed capital may be defined as money that is invested; circulating capital is money that is loaned. These are not exact economic definitions, but they will serve to show the difference between the two from the banker's point of view.

With the supplying of fixed capital the commercial banker has nothing to do. The money entrusted to his care must be so loaned as to be available upon the demand of his depositors, or at least within a reasonable interval. Obviously money invested in the fixed capital of any business cannot be withdrawn at will. Stocks represent this kind of capital. The stockholder becomes part owner of the business in proportion to the amount of capital stock owned. He shares the risks incidental to the business and he also enjoys the profits if the venture is successful. Stocks have neither maturity nor a fixed return in the shape of interest. The only way the stockholder can recover his share of the capital is to sell it to someone else. For returns he must look to the dividends which are paid only if profits are made.

Indeed, the stockholder as part owner is liable to an assessment to make good when losses occur. Stockholders of national banks, for instance, may be assessed an additional amount equal to their stock if the assets of the bank become reduced through losses and are not sufficient to meet the liabilities.

Bonds, on the other hand, are loans. The bond-holder has loaned the "obligor," or the corporation issuing the bond, a sum of money represented by the amount of his bonds. The bond is a promise to pay. It has a fixed and definite maturity and yields a known rate of interest. Therefore bonds are suitable investments for banks, whereas stocks are not. The difference between bonds and ordinary promissory notes is one of dimensions. A bond issue is for millions, rather than hundreds, of dollars; the bonds fall due after a period of years instead of months or days, and they are issued by large corporations, municipalities and governments, rarely by individuals. The issue is split into parcels of $1,000 or less, so that the loan may be widely distributed. Capital is accumulated into stocks, bonds or bank deposits in much the same way, that is, by large or small amounts in proportion to the surplus-wealth-creating ability of the investor or depositor.

The study of the value of bonds is of a technical nature and closely resembles the study of credits. The bond expert is one who is familiar with the conditions surrounding every issue of bonds. He is able to appraise the value of the security back of them, he has exact knowledge of the business of the obligor, or, if issued by a municipality, he investigates the amount of taxable property, the interest on an issue of school bonds, for instance, being paid out of taxes upon property owners. In addition to purchasing bonds for investment, many banks also have a bond department. This department buys large blocks of various

issues, which are then sold to regular customers of the bank at a profit or commission. The principal book of record in this department is the bond register upon which is entered a full description of the bonds held. Bonds take their titles from certain characteristics, as, for instance, "government," "railroad," "school,"—character of the obligor; "extension," "refunding," "water-supply,"—purpose of issue; "4's," "5's,"—rate of interest, etc.

A place where buyer and seller may come together and trade is known as a market. By the establishment of markets the seller is provided with a place where he may look for prospective purchasers and vice versa. Stocks and bonds are dealt in in stock markets or exchanges. Those who buy and sell stocks and bonds for others are "stock brokers." All securities are practically sold at auction, the broker being paid a commission for his services. The prices at which sales are made are published broadcast, so that the banker who accepts stocks or bonds as collateral security for loans is able to estimate their value even if he is unfamiliar with all the conditions that give value to them. All bankers should familiarize themselves with local issues of both stocks and bonds, and they should know where to get reliable information concerning other issues which may either be offered for sale or used as collateral upon loans. Such information is secured through investment specialists, who may be described as credit men who specialize in information regarding corporations, firms, or municipalities borrowing money through bond issues.

Savings Banks

As we have seen, banks belong to three main groups—commercial, savings and trust. It would be more exact to say that there are in general three kinds of banking, because one bank may, and often does, transact these different kinds of business under one roof. National banks are essentially commercial banks, yet many of them conduct savings departments, and the Federal Reserve Act permits them to act as trustee, executor, registrar, etc.—trust company functions—when not in contravention of state laws. State commercial banks are like national banks in these respects. Deposits in commercial banks may be made up largely of loans, or, putting it differently, there are deposits of credit as well as deposits of money. In the sense that deposits of cash are deposits of money that has been "saved," all banks may be said to be institutions for the receipt and safeguarding of savings. This use of the word savings is, therefore, quite common in bank names, although a bank using the word in its title may in reality be a commercial bank. In the State of Iowa the law provides for the organization of two kinds of banks, "state" banks and "savings" banks, and the designation, savings, is required by the code. Inasmuch as there are certain advantages to be derived in organizing under the savings part of the code, we find many savings banks, so called, in Iowa which are in point of fact ordinary commercial banks. The attention of the student is directed to this point because of the confusion that exists on account of the variation in the use of terms in different states. Thus in Massachusetts reference to a bank directory will disclose but three kinds of bank titles—national banks, savings banks and trust companies. These last are virtually commercial state banks with the privilege of doing "trust" business if they so desire.

Savings banks in the strict meaning of the term are banks organized to receive the savings of depositors, to invest them in loans and securities of the very safest kind, and to pay the depositors a fair rate of interest. The relation between the savings bank and its customers is of a close and confidential nature. The depositors are for the most part of the poorer classes, the working people and the thrifty of all sexes and ages who seldom accumulate enough money to invest it for themselves even if possessed of sufficient business judgment to warrant their doing so. We find that both the laws of the state and the rules of savings banks throw every possible safeguard around the savings bank depositor. In many states not only are savings banks restricted as to the kind of investments they may make, but the law even goes so far as to designate a list of specific securities which are classed as "legal investments for savings banks and trust funds." The two most common forms of investments for savings banks are mortgages upon real estate, preferably homes, and bonds. Among the latter railroad and municipal or civic bonds are given the preference, since the margin of safety is greater. Such investments are possible since savings deposits are of a permanent nature. The savings bank is the depository for money laid by for a "rainy day," old age, sickness and similar needs. Parents open accounts for their children, partly to teach them the habit of thrift, partly to defray the expenses of education. The young married couple will deposit the funds resulting from little household economies that they may build themselves a home, and there are thousands of savings accounts the owners of which may have no other definite purpose in mind except the instinct to save, which is natural to the normal human being, a habit that man has in common with other creatures of the earth.

There are two kinds of savings banks in the United

States, the stock savings bank and the mutual savings bank. The stock savings bank, as the term implies, has capital stock and is organized for profit. The mutual savings bank, found almost exclusively in the section east of Ohio and north of Virginia, has no capital stock, the profits belonging to the depositors and being paid to them as interest upon balances. The stock savings bank has a board of directors and the affairs of the institution are managed very much along the lines of the average commercial bank. The mutual savings banks are managed by a board of trustees, which is a self-perpetuating body chosen for their integrity and standing in the community. Of the two, the mutual banks are by far the largest, there being at least four with deposits of over one hundred millions of dollars. The report of the Comptroller of the Currency for 1913 showed total deposits in mutual savings banks to be over four billions of dollars, while the deposits in stock savings banks were less than one billion. The postal savings bank system, conducted by the postoffice department, is a concession to those who for one reason or another do not trust banks. Money that would otherwise be hoarded is put into productive channels through the operations of the postal savings system.

Savings bank accounting differs from other bank accounting only to the extent that the business is conducted with a different class of depositors, whose needs are not the same as the needs of the business man and merchant. Savings accounts, being comparatively inactive and small as compared with commercial accounts, are usually recorded upon ledgers and other records by number. Savings bank balances are not subject to check as a rule, nor could they very well be since the investments of the bank are not sufficiently liquid to permit withdrawal without due notice. Some banks have a fixed rule requiring two weeks'

notice before money may be withdrawn; others pay upon the presentation of the pass-book, but practically all of them reserve the right to take advantage of the law, when necessary, which permits a savings bank to demand sixty days' notice of the withdrawal of funds. The pass-book used by a savings bank is used as a voucher or a receipt, both for money deposited and money withdrawn. It is also evidence of the contract between the bank and the depositor. The pass-book must always be presented when money is withdrawn, the depositor being required to identify himself not only by possession of the book, but by his signature and his ability to answer test questions, for example, his mother's maiden name. The bank is not required by law to be familiar with the signature except that it is a means of identification. Many of the depositors may be illiterate or they may be children whose handwriting undergoes rapid changes, consequently many savings banks use the finger-print method of identification. These precautions are necessary to prevent money being paid out to imposters who may have gotten illegal possession of a pass-book. In order to prevent depositors from using the bank as a temporary depository for idle funds there is usually a limit placed upon the amount anyone may deposit in a single year, and balances over a certain amount, $3,000.00 for example, do not draw interest.

Savings banks specialize in mortgage loans which are loans secured by real estate. A mortgage is a conditional deed conveying the property of the mortgagor, the borrower, to the mortgagee, the bank. The instrument is conditional in that it is void if the borrower meets the conditions imposed, namely, the payment of interest and principal when due. The papers incidental to a mortgage loan are the note or bond which is the evidence of debt; the mortgage duly executed which is the security; the abstract of title,

which indicates that there are no prior liens against the property; the insurance papers which protect the bank against loss if the mortgaged property is destroyed by fire. In applying for a mortgage loan, the applicant describes the property and states the amount of money desired. The value of the property is then estimated by the bank's appraiser, while an attorney, or a title insurance company makes a "search" to determine if the owner's title is "clear." Only first mortgages are permitted as investments by savings banks. The amount of money that may be loaned is also limited by law varying from 50% to 60% of the appraised value of the real estate. The essentials of security in a mortgage loan consist of such considerations as the up-keep of the property, its location with respect to transit facilities, chances of depreciation in neighborhood values, adaptability of buildings for more than one use, etc.

As a banking problem, mortgage loans offer an interesting field for investigation and discussion. How is it that loans based upon the best security in the world, improved real estate, cannot be so regulated as to permit commercial banks to invest in them? The argument against such loans by commercial banks is that they cannot be readily converted into cash in case of need; they are for long periods, and in case of foreclosure, which is the sale of the property in case the principal or interest is not paid, there is a considerable amount of time lost in the legal proceedings involved. For these reasons national banks have not been permitted to loan money upon real estate mortgages. Recently they have been given permission to make such loans subject to certain restrictions, provided under the Federal Reserve Act. The difficulty has been that mortgage loans have been allowed to drift into the class of permanent investments. Provided the security is good and the interest has been paid promptly, the banks have been

content to allow the loans to run. The borrower, instead of paying off his mortgage loan when he is in funds, has thus been tempted to invest in more property, paying back the loan only when he sells the property that has been mortgaged. Abroad, the borrower begins to pay back the loan in installments at each interest period, the result being that mortgage loans are as liquid an investment as are bonds in this country.

As has been stated, certain bond issues are designated by law in many states as legal investments for savings banks. While municipal and railroad bonds are given the preference it does not follow that all bonds of these classes are acceptable, nor is the discrimination made along arbitrary lines. Railroads must measure up to a high standard of efficiency and management before their bonds may be designated as legal investments for savings banks. So also with the bonds of a city or state. The total bonded indebtedness of the city must not exceed a certain percentage of the value of taxable property.

The accumulation of a reserve or surplus by a savings bank is very essential. Conforming to the accounting principle that both sides of the statement must always balance, the bank must have a dollar of assets for every dollar of liabilities at all times. The market value of the investments of savings banks, consisting largely of securities, are subject to fluctuations, hence it is necessary that a margin of safety shall be provided in the surplus fund which is created out of the earnings. Bonds are rarely bought at par value; if the interest paid is fairly high and the security very good, bonds will sell at a premium. Let us suppose an issue of bonds is bought by a savings bank as an investment at 105. That means each $1,000.00 bond has cost $1,050.00. If the bonds fall due in twenty years, at the end of that time the savings bank will not get back

$1,050.00 for each bond, the price paid, but $1,000.00 or par. How, then, shall the savings bank account for this apparent loss of $50.00 on each bond? Out of the interest. At each interest period, or once each six months, the interest coupons being usually paid twice yearly, a part of the income is applied to the premium that was paid for the bond, so that by the time the bond matures the entire premium of $50.00 is restored. The process by which this is accomplished is called amortization. The same principle is applied but with reverse effect, when a bond is bought at a discount or at a lower price than par.

Enough has been said of savings banks, their purpose, methods of receiving deposits and making loans to indicate that they perform a very important service in the business world. They accumulate the small savings of the multitude of wage earners, money which, if hoarded or squandered, would be of use to nobody. Through the loaning power that savings banks acquire, the result of the thrift of their depositors, men are able to borrow money with which to build and own their homes. The home owner is a much more valuable member of society than the man who owns no property. These same savings, that have come out of wages, are often turned back into the very business or industry that has produced them through loans made by savings banks. If there were no funds to purchase bonds there would be little industrial or civic development in the shape of railroads, telephone, electric lights, reservoirs, sewage systems, schools and a hundred other modern conveniences that not only add to our comfort and pleasure, but also furnish employment for thousands. Thrift, then, is more than an abstract virtue; it is an economic necessity. Men who are thrifty are usually industrious, self-respecting, sober and law-abiding. Hence, we find that the savings banks are beginning to spread thrift

propaganda through advertising and in other ways, not only because it helps their business, but because it has a tendency to raise the standard of the people in general. Schools are installing savings systems that make it possible for very young children to open savings accounts. They are thus not only taught the value of the saving habit at an early age, but they become familiar with banking methods.

Trust Companies

A trust is anything of value, such as money or personal property which is committed into the care of another for the safekeeping, use or benefit of the owner. This implies confidence on the part of the owner in the integrity and reliability of the person trusted who is called the trustee. Trustees are appointed because those who have property either cannot or, for one reason or another, prefer not to act for themselves. Thus, while all banks are in a broad sense trustees for their depositors in that they care for the deposits of their customers, a certain group of banks are organized primarily for the purpose of administering trusts and acting in a fiduciary capacity generally. Such banks are called Trust Companies. Trust companies are of comparatively recent origin and they are the newest of the three great groups of banks. The step in their development or evolution has not been from the bank to the trust company, but from the individual trustee to the corporate trustee or trust company. In the early days of the country, individuals assumed the obligation of trustees for other individuals and in fact this custom still obtains, especially in sparsely settled districts. As men have become more wealthy and as accumulations of property have increased, there has arisen the need for some organized and efficiently trained body of men who could administer the estates and affairs of other men whether living or dead. There are many reasons why the trust company is better fitted than the individual to perform the functions of a trustee. The individual trustee may die, or move away, or become incapacitated through illness or lack of knowledge of the law. The trust company may be said to be perpetual; it is managed by men trained both in law and in finance who give their entire time to this particular business.

Trust companies act not only for individuals, but also for societies, corporations and municipalities. Their principal functions are to act as executor of wills, administrator of estates, guardian of minors, agents for individuals, trustee under mortgages, transfer agent and registrar for corporations, fiscal agent for governments, states and municipalities, and receiver for firms and corporations. As executor or administrator they administer the estate of the deceased according to the law, and the fees for such service are fixed by law at the same rates as individuals are permitted to charge for like services. As agents for individuals they may care for property, collect rents and perform whatever other duties they may be charged with. As trustee under mortgages, the trust company safeguards the interests of the mortgagee and will foreclose the mortgage if principal or interest are unpaid at maturity. This particular feature of the trust company's business is usually confined to acting as trustee under a bond issue which is secured by a mortgage upon corporation property. As transfer agent and registrar, the trust company certifies as to the genuineness of either a stock or bond issue and records all transfers of such stock or bonds. The company does not guarantee the payment of bonds or of dividends upon stock; it merely vouches for the regularity of issue and the validity of the transactions involved. As fiscal agent for civic divisions, money is collected and disbursed upon warrants and in the payment of interest on bond issues, etc. In addition to the above, trust companies act in various other capacities of a similar nature.

The banking department of a trust company is conducted like any other bank. Deposits are received subject to check, interest is allowed on savings deposits, and in practically every particular this branch of the business is the same as that of the ordinary bank of deposit and discount.

Tellers receive and enter deposits, pay checks, collect drafts and notes; bookkeepers keep ledgers and make credit and debit records just as the work is done in any other bank, and similar books and systems of accounting are used. In Minnesota, Michigan and Wisconsin, trust companies are not permitted to do an active banking business, but are restricted to the handling of trusts and other fiduciary matters. As to loans and investments permitted trust companies, state laws differ, but the general statement is true that they employ their funds just as do the commercial state banks.

It is chiefly in the trust department that the functions of a trust company are distinctive. The estates and funds of both the living and the dead are cared for by this department. The organization of the trust department is kept separate from the banking department. As money is received by the trust department representing the income from property or investments of funds held in trust, it is deposited in the banking department and is checked against by the trust department as if the department were an outside depositor or customer. It would be possible for either department to exist without the other. The field of the trust company has become so highly developed and its trust functions have become so well understood by the public that there is a growing demand for a further extension of trust company powers. This is evidenced by one of the provisions of the Federal Reserve Act, which gives to national banks the privilege of acting in a fiduciary capacity when not in contravention of state laws.

Clearing Houses

A bank check may be defined as a written order drawn upon a bank by a depositor directing the bank to pay a certain sum of money to bearer, to a payee named on the instrument, or to someone else named by the payee. In the majority of cases the payee does not himself present the check for payment. Instead he deposits it to his credit in another bank, thus constituting that bank his agent. The principal business dealings that banks have with each other grow out of the use of checks by individuals and their presentation and collection by banks.

The extensive use of the check is interesting from the bank clerk's point of view. Approximately 90 per cent. of payments are made by check. These settlements are not made in money but in credit. That is to say, the credit that A has with his bank is transferred to B in the payment of debt through the use of the check. Very little money, in comparison with the volume of transactions involved, ever changes hands. This use of the credit instrument instead gives employment to probably more than 75 per cent. of all the employees of banks doing a commercial business. Tellers, bookkeepers and their assistants in all departments are engaged principally in keeping the records incidental to deposits and withdrawals by check.

In a small town having but one bank all of the checks growing out of purely local business are drawn upon that institution. Let us suppose that A and B are both depositors in the same bank. A gives B his check for $100.00 in payment for a horse. It is not necessary for B to present the check, receive the money and then redeposit the cash to his own credit. Instead, he deposits the check, the bank crediting his account and charging the account of A. The same process is being followed by all the depositors in

making settlements with each other. No actual cash changes hands; there is merely an offsetting of debits with credits on the books of the bank. This is known as the "clearing principle."

Banks make use of this principle in settling accounts with each other. The agency through which they avoid the constant transfer of money among themselves is the Clearing House. The term is used to apply either to the building used for this purpose or to the organization or association of the banks united together for this and other purposes. In its practical sense the clearing house represents a plan rather than a tangible thing. Let us suppose there are five banks which are members of a clearing house. At the end of the day's business each member finds itself with checks drawn upon the other four. The checks of each are endorsed with the bank stamp, enclosed in a separate envelope for each bank and a total of the checks is listed on the outside. The totals are then listed opposite the bank names on a double column sheet and a footing is struck. In theory each bank assumes that these checks are not payable by the individual banks but by the "clearing house." Therefore, at a fixed time, usually about ten o'clock A.M., each bank sends a messenger to the clearing house with its checks against the other banks. In a small town the office of one of the members is used as a clearing house and an officer of that bank acts as "manager." The packages are then exchanged. Each clerk writes opposite the proper name, the amount of the checks on his bank presented by the others.

These amounts are added up and the smaller amount is subtracted from the larger. If the messenger receives more checks on his own bank than his bank had on the others, then he is a "debtor." If the reverse is true then he is a "creditor." The manager then takes the record of the

debtor and creditor balances which, of course, must be equal, thus proving the correctness of the exchange. The clerks return to their respective banks having checks only on themselves, whereas they came to the clearing with checks only on their neighbors. The whole transaction will not have consumed more than ten minutes. Even in the very largest cities, with millions of dollars involved, the exchange is made almost as quickly. The large cities usually have a separate building for clearing purposes and employ a regular manager who is in charge of the clearing process.

The exchanges having been made, the banks now prepare to settle the balances. There are various ways of doing this, depending upon the size of the city and the number of banks in the clearing house. In the smaller towns the manager of the clearing house draws drafts upon the debtor banks which he gives to the creditors, who then present them and receive either the cash or its equivalent. Or the manager may deposit the drafts of the debtor banks with one of the members and draw his own checks against this deposit in favor of the creditors. Another method is to make payment by draft upon the Federal Reserve Bank of the district or upon other reserve agents. In the larger cities settlement is made in cash or its equivalent, payment being made by the debtor banks to the clearing house which acts as agent in paying over the money to the creditor banks. To avoid the handling of even this money, many clearing houses conduct a depository where deposits of gold and currency are received, and certificates in large denominations, $5,000.00 and $10,000.00 are then issued. Settlements made with these certificates are upon a cash basis, yet the danger of loss or error in handling the actual money is avoided. The saving of time and the use of money is well illustrated by the fact that in New York

City every clearing house member is enabled to exchange checks with every other member in about fifteen minutes each day, and the balances to be settled average less than 5 per cent. of the total checks exchanged.

Certain rules are prescribed by clearing house associations covering the method of conducting the exchanges and regulating in general the business which the banks do with each other. For example, the rules fix the hour for clearing, method of making settlements, returning of unpaid items, hours for opening and closing the banks, and many other matters that are adjusted in the interest of regularity and uniformity.

Some of the associations employ an official clearing house examiner who supplements the examination by the national or state bank examiner, paying particular attention to the loans and discounts. He is employed by the banks to give them advice as to their methods of doing business, his information and suggestions being extremely confidential. He makes record of the lines of credit being extended by the various member banks and is thus able to check unsound lines before any damage is done. His functions will be described in greater detail in the next chapter.

The clearing principle as applied to check collection is not limited to the items payable in one city. Many clearing houses have also a department for the clearing of country checks. In such cases all the member banks send their out-of-town items within a certain district to the clearing house which operates as one bank acting for all. Thus, instead of receiving a daily letter from each bank in the city, the country bank gets all its checks from that city in one letter from the clearing house, to which it then remits with a single draft. The Federal Reserve Act has carried this process one step further by requiring the Federal reserve banks to act as clearing houses for their member

banks. Checks which each member bank sends to the Federal reserve bank acts as the credit offset to the checks which the Federal reserve bank receives on that member. It may be said that much of the Federal Reserve Act is the result of experience with clearing house methods and regulations.

Bank Examinations

In a previous chapter we have discussed the bank's statement of condition which sets forth in detail the various amounts the bank owes to its stockholders, depositors and the general public. Against these liabilities the bank must hold an equal amount of assets, otherwise the bank is insolvent and must close its doors. If we go into a restaurant for luncheon we are not satisfied merely to read the bill-of-fare; we want to try some of the dishes for ourselves. If we order chicken soup and the waiter brings us a bowl of warm water, we refuse to accept it, no matter if the proprietor insists that it is chicken soup that has been set before us. But when a man wishes to purchase the stock of a bank or deposit money with it, he cannot personally test for himself the quality or quantity of the assets set forth on the bank's statement and thus assure himself that the bank is sound. There may be no intention whatever on the part of the bank to deceive or defraud. The bank itself may be deceived in its ability to pay the amount of the deposit on demand just as borrowers often honestly overestimate their ability to repay a loan when it is due. Therefore the law provides an official examiner who "tests the soup" for the general public who may deposit or invest their money in the bank.

The purpose of bank examination is twofold; first, to see that the institution is solvent, having a dollar of assets with which to pay every dollar of liabilities; and, second, to ascertain that the bank is obeying the law. From the examiner's viewpoint the principal reason for insisting upon a strict observance of the law is that the bank may continue to be solvent. The nature of these laws will be explained in the final chapter.

Bank examinations are of four kinds, two of which may

be said to be internal and two external. In the first class are examinations by a committee of the directors and examinations by certified public accountants whom the directors may employ to make this audit and examination for them. The official Federal, or State examinations, and clearing house examinations may be classed as external examinations. The internal examinations are, of course, not unexpected by the officers of the bank, who, with the directors, arrange for them. The official or external examinations are never announced in advance, and hence they may be said to be more effective if there should exist any condition due to fraud or weakness that might be covered up temporarily.

It is rather difficult to draw the line clearly between an audit and an examination; yet the examination by directors or accountants for the directors is more in the nature of an audit than an examination. It is the duty of the auditor of a bank to see that all settlements are properly made by the various clerks and departments, to check all cross entries on the books, to prove interest calculations, to reconcile accounts with other banks and to supervise the entire accounting system generally. In small banks one of the officers has charge of this work. When the directors make their annual or semi-annual examination they certify to the correctness of all transactions as of a certain day. Their examination includes a proof of the cash and a checking up of the loans and discounts. In very large banks they usually have the assistance of the clerks who are interchanged so that the same men will not be used in proving any books or cash to which they have previously had access. Bank directors make their examinations to assure themselves that the bank's affairs are in proper condition. Although they may commit the operation of the bank to the authorized officers, the directors cannot thus escape their

responsibility or liability under the law for the safe administration of the institution. The employment of a certified public accountant to do this work is a more thorough way of making an internal examination, since the accountant and his assistants are trained men and have the advantage of a disinterested point of view.

The National or State examiners make their visits without notice; usually just after the bank has closed for the day. The settlement for that day's business is then checked and all cash, checks and securities are put under seal so that no substitution can be made over night. The examination then proceeds the following days until every detail of the business is investigated and accounted for. The general policy of the bank is taken into consideration, as indicated by the nature of the loans, the borrowing habits of the customers, the methods of accounting used and the general observance of safe and conservative business rules. Like the physician who examines a patient, the official examiner bases his methods upon the assumption that there may be something wrong which it is his duty to detect and remedy.

The clearing house examination plan is a sort of combination between the directors' examination by certified accountants and the official examination. The clearing house examiner is employed jointly by all the banks of a city and his examination is made for them, but in his power of criticism and in the timing of his visits he is independent. His examination is just as thorough as that made by the Federal or State examiner, in fact, in some cities the two examinations are conducted jointly. Where the clearing house examination differs is in the attention given to the loans and discounts. The clearing house examiner makes a record of all loans over a certain amount in every bank in the Association, so that he is able to base an intelligent

opinion on the true value of the bank's largest group of assets. This information is kept under lock and key by the examiner and is used by him as credit memoranda. He is thus able to advise the banks if any local dealer is borrowing more heavily than his business warrants. The official examiners are limited in their powers of criticism to infringement of the laws, but it is the duty of the clearing house examiner to act in an advisory capacity, and to seek to prevent any unsound condition from arising. The Federal Reserve Act provides for special examinations of member banks for the purpose of informing the reserve banks of the lines of credit being extended by member banks. In principle, these special examinations are similar to clearing house examinations.

Banking Laws

Laws affecting banking by which banks are organized, regulated and controlled in their relations with the public and with each other, are the result of many years' of experience in banking. As we have had occasion to note in the opening chapters, banking is based primarily on natural or economic laws. Statute laws pertaining to banking have been added to and revised from time to time, not because there has been any appreciable change in the fundamentals of business, but because men through experience and a study of the lessons taught by experience have found how to correct flaws in banking methods and so avoid the dangers and pitfalls of a previous generation. Thus banking systems have undergone a gradual but steady change toward safer and more efficient standards. It is like the discovery of a safe channel in a narrow and dangerous waterway. After there have been many wrecks and disasters the difficult harbor is finally reached in comparative safety by following buoys and lights that mark the location of submerged rocks. So with banking laws. Each is a lighthouse that safeguards all who would embark in this business of chance and risk, from losing ship and cargo upon the same treacherous reef that has wrecked many another.

A study of financial history with its eras of commercial prosperity alternating with crises and depressions will disclose the reason for many present-day banking laws. In our own country where each state has had and still has a banking code of its own, modified it is true by the national system made necessary by one of the most terrible wars of modern times, we can trace the effect of all these factors upon our latest legislation, the Federal Reserve Act.

It is not within the scope of the present volume to discuss the Federal Reserve Act. Before the student is able to

grasp the true significance of its provisions, he must first have a clear conception of the underlying principles involved in banking and banking laws, and it is with this elementary phase of the subject that we are here concerned. We may, therefore, discuss briefly a few typical national bank laws that will serve to illustrate the nature and purpose of all banking legislation, whether state or national.

Many of the more important regulations have to do with the capital, in fact nearly all the privileges and restrictions of the business are based directly or indirectly upon this first item of the bank's liabilities. The minimum amount of capital is fixed by the population of the town or city where the bank is located; the larger the city the greater the amount of capital required. The reason for this is that since there can be no limit to the amount of business a bank may do, it is necessary to anticipate the probable security that must be given to prospective depositors who would very likely be more numerous in a large city than in a small village. To make the security even greater, stockholders of all national banks and also in many state institutions are doubly liable. That is, if the bank should fail with not enough assets to meet the claims of depositors and other creditors, not only would the money due the stockholders represented by the capital and surplus be forfeited, but the stockholders may be assessed an amount up to the par value of their stock to meet any deficiency. A bank may not hold or purchase its own stock since the effect of such a privilege would be to reduce the amount of the capital by that much. Not all the provisions in law tax the stockholder or owner of the bank to safeguard the interests of those who trust their deposits with the institution. There is one provision which protects the capital as well as the deposit. National banks are required to build up a surplus until that item is at least 20 per cent. of the capital stock.

Any losses can then be charged to this fund without depreciating the capital. Thus it is the aim of all well-managed banks to create as large a surplus as possible which gives additional strength and has a tendency to attract deposits.

One of the greatest financial dangers that beset a nation is credit inflation. In "boom" times, when all lines of trade are active, crops good, labor well employed and everybody enjoying unusual prosperity, there is a national tendency for men to reach out for even greater riches. This is the result of that predominant characteristic of human wants which we noted in an early chapter, the insatiability of men's desire for more and better things. During such periods as we have described, men are apt to become overly optimistic as to their prospects. The result is that credit is often extended too freely, being based upon hopes founded on fancy rather than on fact. When several important ventures collapse, the credit that was based upon them becomes valueless and then a sudden fear takes hold of the public. The result is a "panic." It is the purpose of such laws as the Federal Reserve Act not only to curb an undue expansion of credit, but also to help banks prevent a panicky situation from spreading.

There are many safeguards provided by law against credit inflation. As the first may be set down the trained judgment of the sagacious banker who investigates his customer's statements upon which the loan is to be based. The banker knows that if the loan cannot be paid at maturity, his bank may lose money. Then there is the scrutiny of the bank examiner to be counted on; will that loan pass his inspection? There is the further restriction that not more than 10 per cent. of the capital and surplus can be loaned to one interest. This, too, has a tendency to prevent too wide an extension in any one direction. It prevents the bank from risking too many eggs in one basket. Next,

then, is the provision in the Federal Reserve Act which restricts rediscounting to loans growing out of actual commercial transactions. That is, the loans must be "self-liquidating," or payable out of the proceeds of the sale of the commodity the loans represent. It will not do to rediscount real estate loans, because real estate is a fixed and constant quantity which does not increase merely by change of ownership, whereas staple goods that men use in the satisfaction of wants are produced, bought and sold—and paid for—at all times and in ever-increasing amounts. And when more money is needed to handle the increase of business, the issue of Federal reserve notes must be "covered" by 100 per cent. of paper representing these liquid commercial loans. The issue must also be backed by 40 per cent. gold reserve. If we trace the entire process back to the original loan we discover that at every step the law throws one safeguard or another against inflation.

The successful banker, therefore, is not he who is satisfied merely to avoid losses and make profits for his stockholders; he is the man trained not only in local credits, but also in national and international conditions. He is well versed in fundamental economics; he knows the financial history of his own and other countries, he does not protest against sound bank laws because he knows why those laws are written. In fact, for him there is no law, because his judgment is proof against those errors which law seeks to prevent. And finally, he never forgets that banking is conducted for the benefit of all the people and not for the exclusive profit of the banker; that it is other people's money as well as his own that is entrusted to his care, that it may be wisely used for the welfare of all men.

American Institute of Banking

Organized Education

The American Institute of Banking Section of the American Bankers Association is devoted to the education of bankers in banking and the establishment and maintenance of a recognized standard of education by means of official examinations and the issuance of certificates of graduation, To qualify students for official examinations for Institute certificates, which are termed final examinations, the Institute provides a standard course of study in the form of serial text-books and collateral exercises. No additional text-literature is required. Such study course is divided into two parts. Part I pertains to Banking. Part II pertains to Law. In suitable cities bank employees are organized in chapters for educational work in accordance with the class method of instruction. Students outside of city chapters are associated in the Correspondence Chapter and provided with instruction by mail. Chapter organization and education are thus made uniform and universal. In correspondence instruction each student is supplied with the serial text-books and collateral exercises. The exercises in connection with each lesson are to be submitted to instructors whenever done. The work of students thus produced is corrected and returned with such criticisms and suggestions as may be helpful in each case. To individual students the cost of correspondence instruction thus provided, including text-books and all serial as well as final examinations, is $15 for Part I pertaining to Banking and $15 for Part II pertaining to Law. Payment for each of the two parts may be made separately. One-third reduction from such rates is made to individual students who are employees of institutions that are members of the American Bankers Association. Any additional information will be furnished on application.

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